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THE FRANKLIN INSTITUTE

# Standard Electrical PORCELAIN

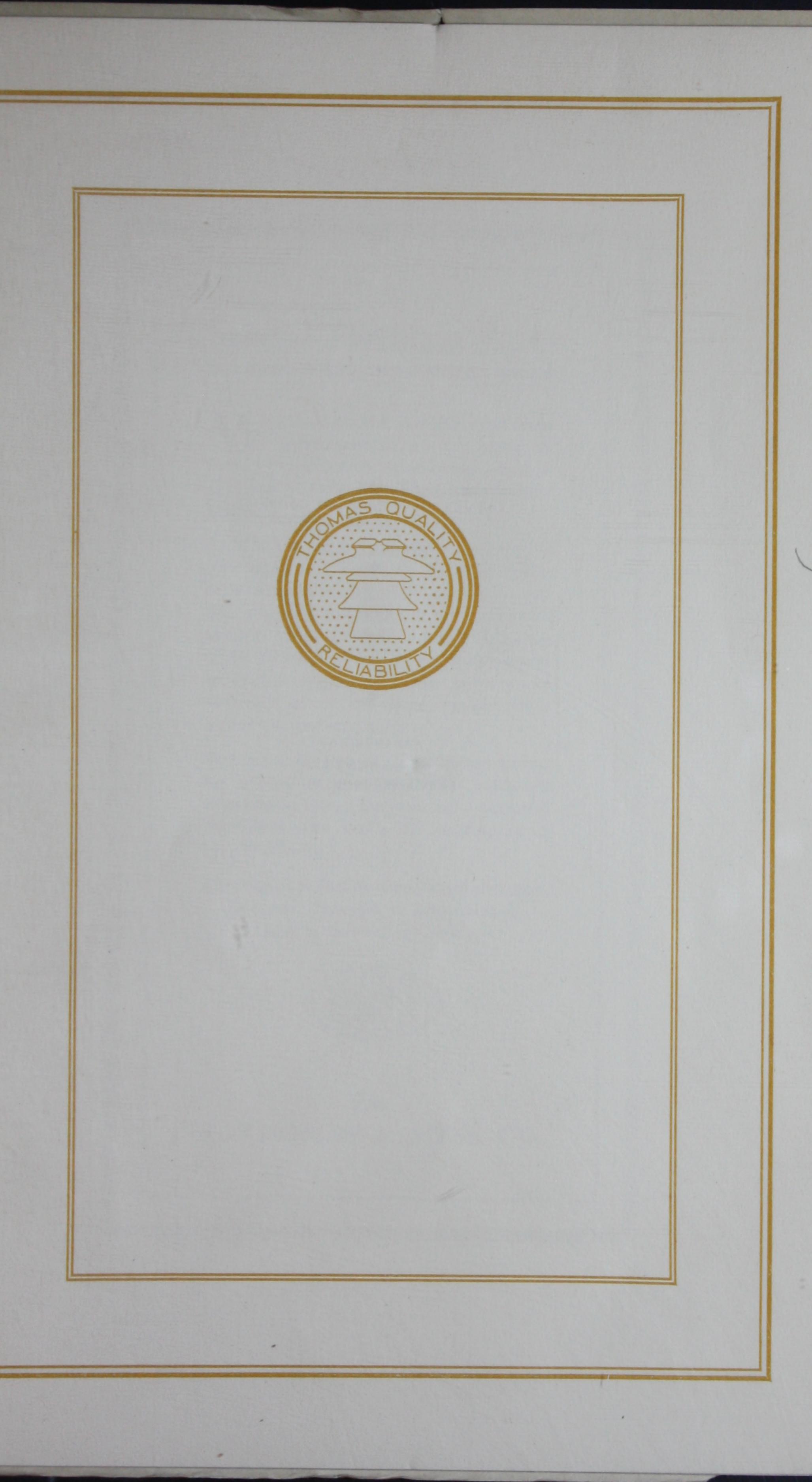


R. Thomas & Sons Company
East Liverpool, Ohio - U. S.A.

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References & Sons Company
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THE JOS. BETZ PRINTING COMPANY
EAST LIVERPOOL, OHIO

ND ENGR

THE ARC ENGRAVING COMPANY
YOUNGSTOWN, OHIO

\*

G. E. ECKERT
EAST LIVERPOOL, OHIO

### Special Porcelain Parts

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We MAINTAIN a fully equipped department for the production of porcelain specialties, manufactured to the specifications of our trade.

MUCH DEPENDS on the accuracy of the Dies and Tools to be used and it is with great pride that we announce the average term of employment per man in our Machine Shops as being Ten Years. Both shops are superintended by executives who have served Fifteen or more consecutive years in like capacity.

WE ARE, therefore, capably prepared to offer an exceptionally valuable service to those Buyers who demand the Best and have an appreciation for Precision.

PROPOSALS can be furnished promptly upon receipt of blue prints, sketch, model or sample

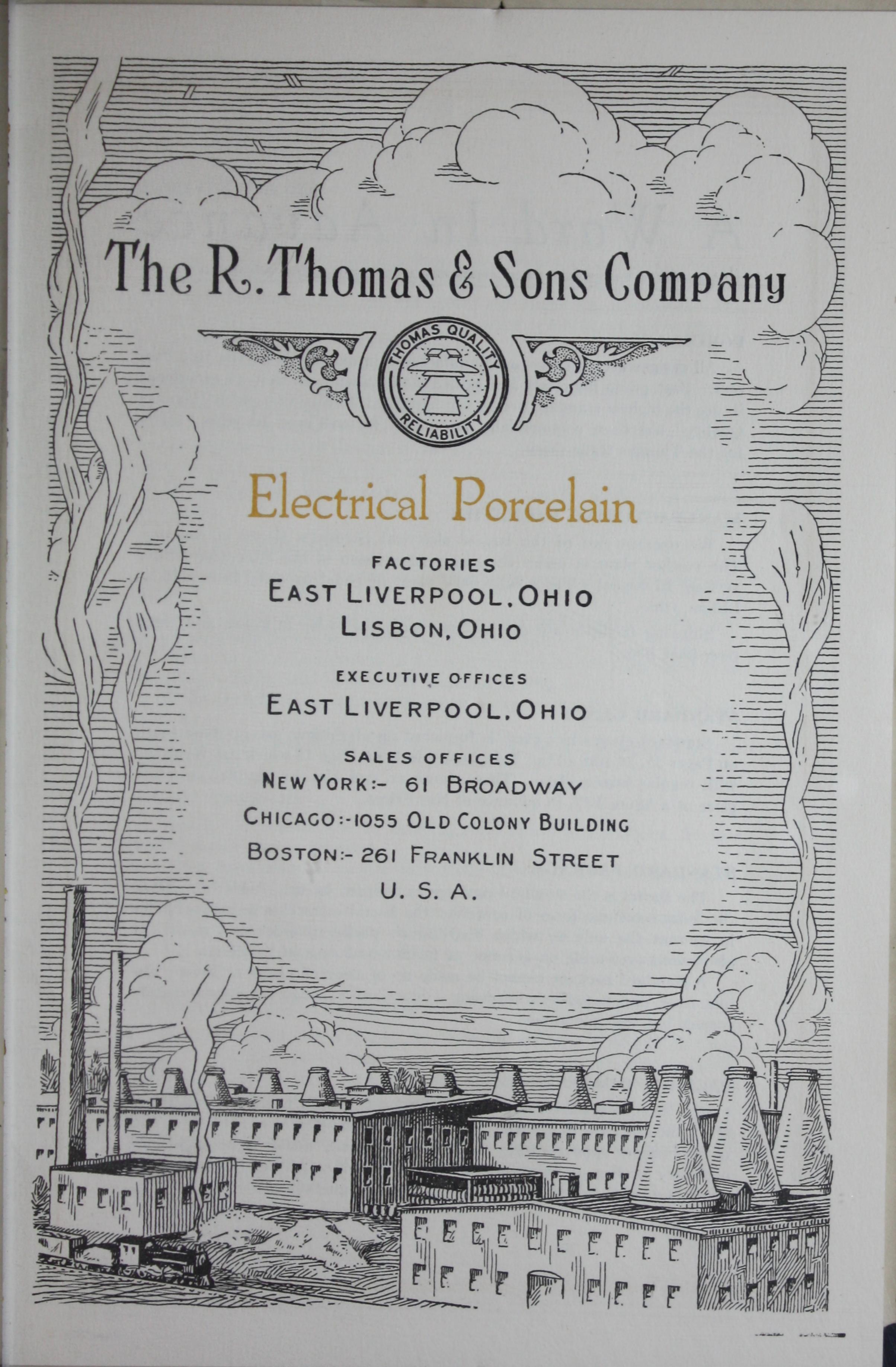


The R. THOMAS & SONS CO.

ESTABLISHED 1873



INCORPORATED 1892





### A Word In Advance

#### PORCELAIN

All designs except tubes are manufactured in our plants by the Dry Process. Best grade materials and skilled workmanship as well as experience insure the highest standard product in Electrical Porcelain by which "Thomas Quality" has been commercially recognized for well over 40 years. Look for the Thomas trade mark.

#### MANUFACTURING FACILITIES

We operate two of the largest electrical porcelain plants in America. The mother plant is under the direct supervision of the Executive Offices at East Liverpool while a subsidiary plant of equal capacity is located at Lisbon, Ohio.

Shipping facilities are of the best, including three railroads and three river-boat lines.

#### STANDARD GLAZE

Standard clear white glaze is furnished on all designs except those listed on Pages 25, 26 and all but Telephone Cleats on Page 15 which are furnished with regular brown glaze. These, however, can also be supplied in white glaze at a figure 10% in advance of Net Prices.

#### STANDARD PACKAGE

The Barrel is the standard package as adopted by us. Aside from being the most economic form of container the barrel more closely approximates in content the unit by which distributor's prefer to order and stock. It also seems preferable on account of facility and ease in handling.

A standard package cannot be made up of assorted pieces or sizes. The quantities designated as comprising a Standard Package are approximately correct but not guaranteed.

#### PACKAGE DIMENSIONS

Our Standard Barrel is 30 inches (762 mm.) high, has a bilge diameter of 24 inches (609 mm.) and has a 19½ inch (486 mm.) head. This barrel weighs approximately 25 lbs. (11.4 kgs.), metal strappings, etc., necessary for Export Shipments adding about 5 lbs. (2.3 kgs.) The weights given herein are approximately correct but not guaranteed.

#### PACKAGE VOLUME

Figures for the item of Package Volume should be accurate since Export Shipments at steamer are closely checked in this respect.

The regular formula for calculating the volume of a barrel, although correct for the single package is misleading in quantity lots, since both the head and bilge diameters and the cylindrical shape are considered. The Actual Package Volume of our standard barrel is 6.9 cu. ft. (.195 cu. m.) as figured by the above method.

However, the Packed Volume as it should be estimated by the Exporter should consider the actual space taken up by the package in the hold of the vessel, remembering that barrels will not nest closely together except at the bilge, or in other words a box having a square diameter the equivalent to the bilge diameter of the barrel and being of equal height would consume no more space in quantities than would the barrel. The actual space taken up by our standard barrel (nested in lots) is 10 cu. ft. (.283 cu. m.) as a maximum.

#### PACKAGE CHARGES

When porcelains are packed in barrels, a charge will be made for each barrel.

When porcelains are packed in boxes or kegs each containing 500 pairs or pieces, a charge will be made for each box or keg.

When porcelains are packed in boxes or kegs each containing 1000 pairs or pieces a charge will be made for each box or keg.

When porcelains are packed in paper boxes, a charge will be made for each box.

All package charges are Net and are subject to no discounts from the invoice price.

#### EXTRA CHARGES

Due to the extreme cost in handling small orders in our plants, the following conditions are effective.

When order amounts to less than \$5.00 there will be a net advance of 25% plus regular packing charges.

When order amounts to more than \$5.00 and less than Standard Package there will be a net advance of 10% plus regular packing charges.

The minimum charge on any single order will be \$1.00 plus regular packing charges.

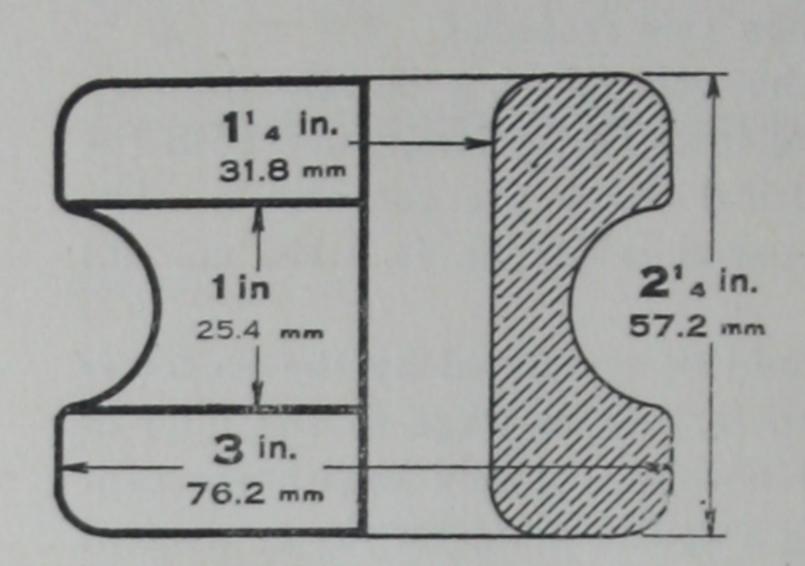
#### NATIONAL CODE MATERIALS

With this edition we desire to announce the withdrawal of all Old Code designs. For economical reasons as well as a means of eliminating hazardous designs it has been considered best to concentrate our efforts in the production of such materials as will pass Code inspection. We appreciate the co-operative spirit manifest by the trade in response to our initial announcement to this effect and trust that the benefits will be mutual.

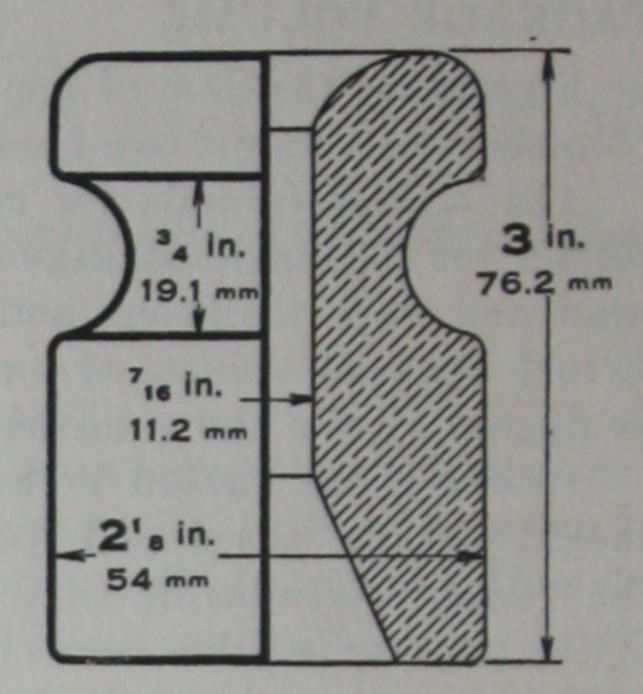
ALL PRICES subject to change without notice.



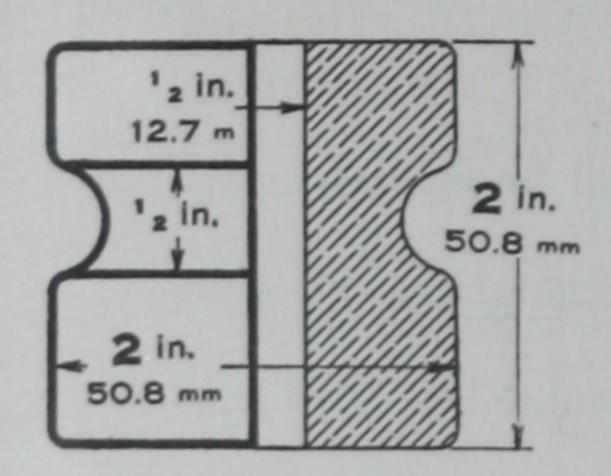
### SONS COMPANY



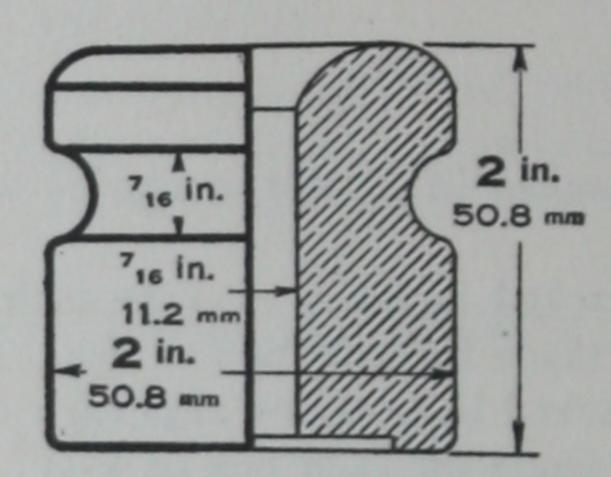
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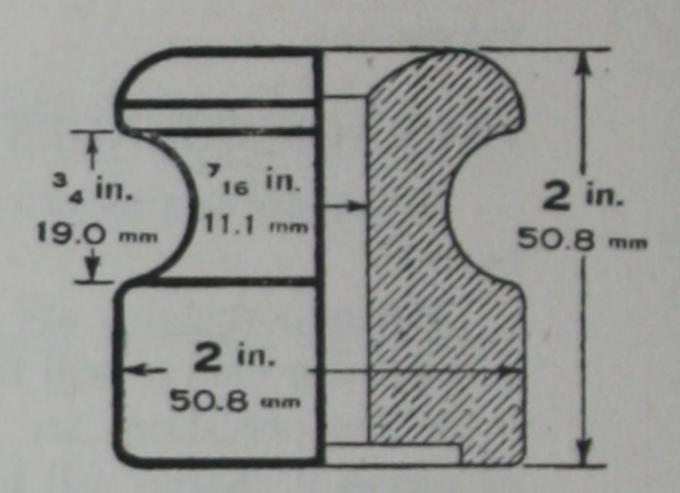
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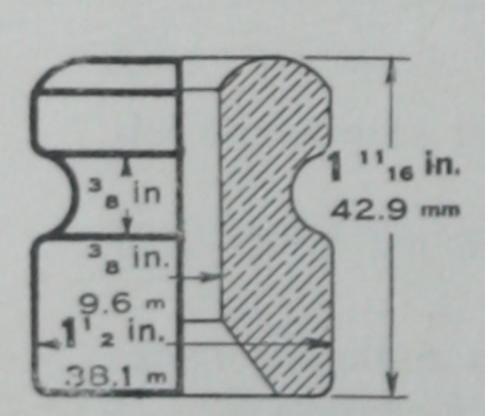
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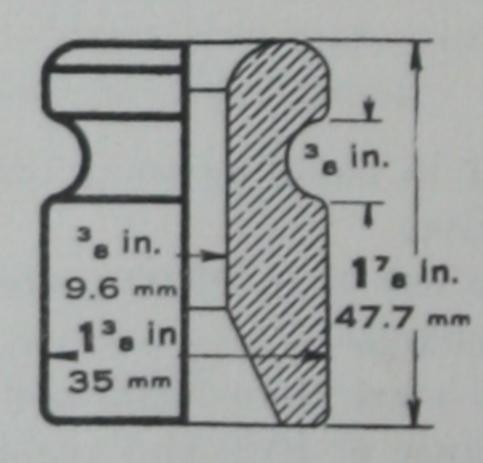
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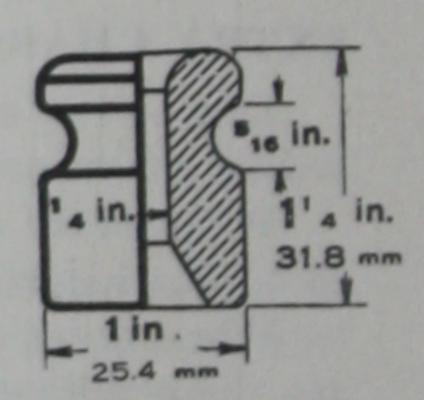
STANDARD No. 31/2
(Old No. 31/2WG)



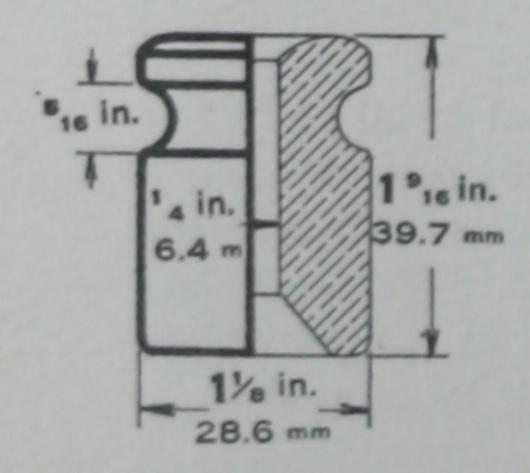
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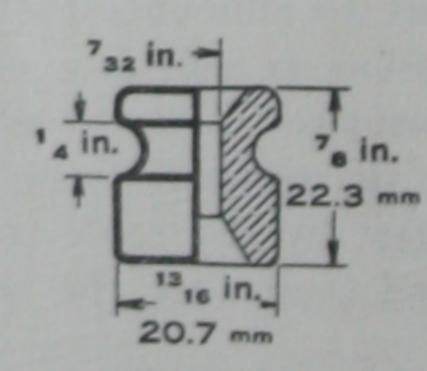
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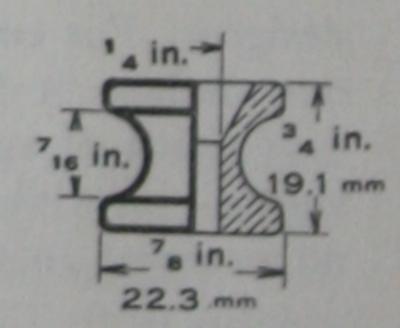
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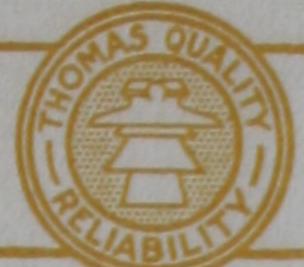
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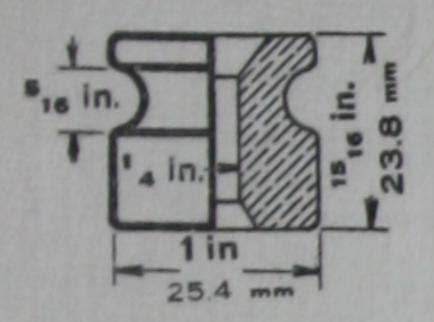
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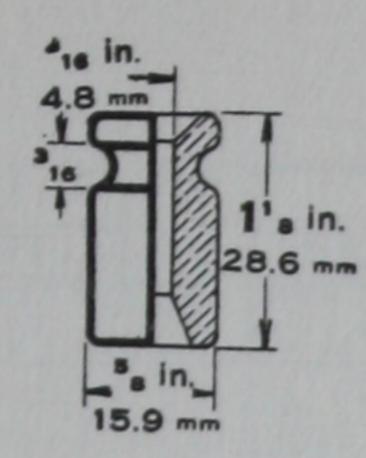
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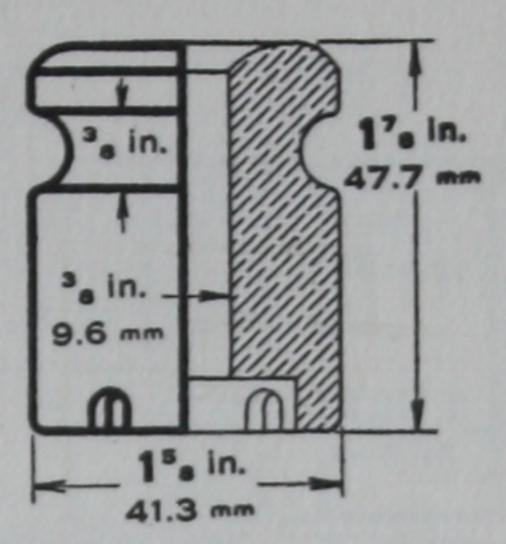
### SONS COMPANY



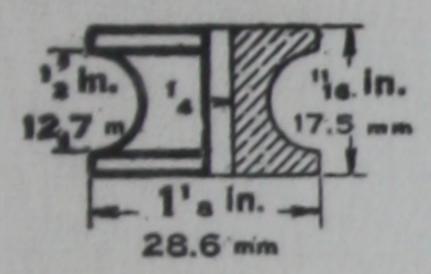
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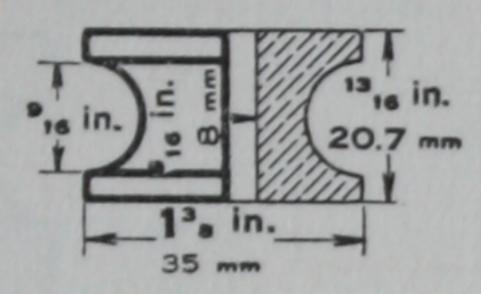
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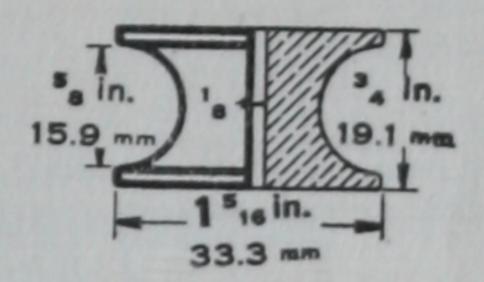
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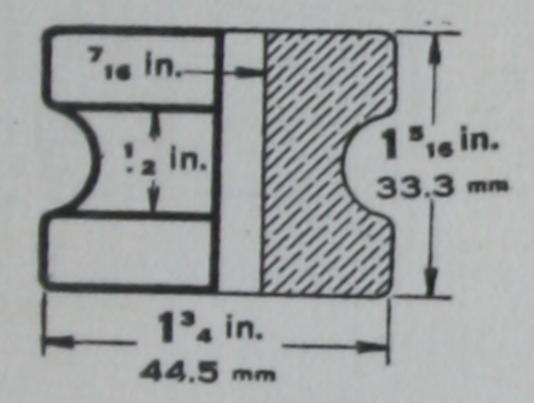
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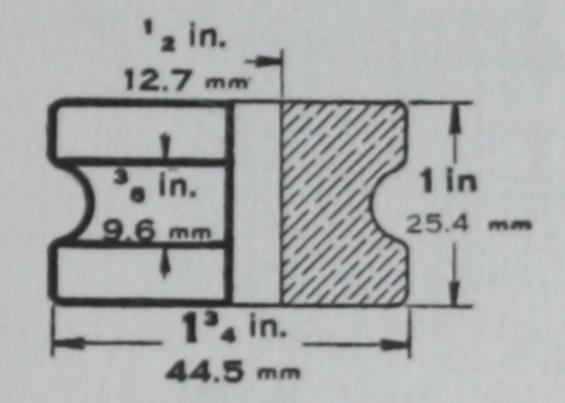
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STANDARD No. 13



STANDARD No. 15

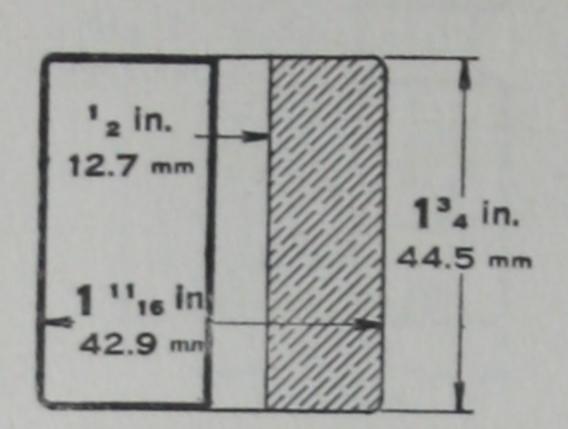


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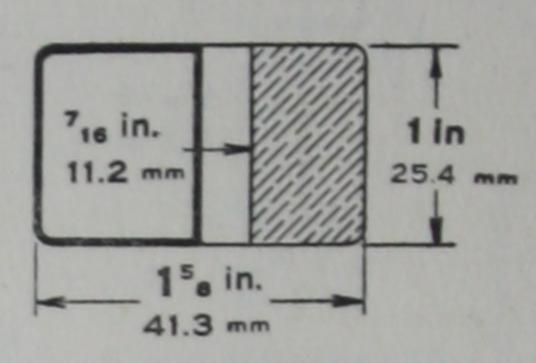
Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight P	Gross er Barrel	Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
0	\$300.00	350	310	141	350	360	163	IABIB
1	182.00	600	380	172	420	430	195	IABIC
2	120.00	850	380	172	420	430	195	IABIF
3	110.00	900	395	179	435	445	202	IABIG
31/2	110.00	900	360	163	400	410	186	IA FEJ
4	55.00	1900	375	170	415	425	193	IAHU
41/2	55.00	2000	360	163	400	410	186	IAHUI
5	29.00	6000	390	177	430	440	200	IAHU.
51/2	38.00	3500	370	168	410	420	191	IAJAJ
6	22.00	13500	425	193	465	475	215	IA LOT
7	26.00	15000	330	150	370	380	172	IALOV
8	26.00	8000	335	152	375	385	175	IALOZ
9	25.00	20000	360	163	400	410	186	IALPA
10	75.00	1500	375	170	415	425	193	IAPJI
11	45.00	10000	290	132	330	340	154	IAPKA
12	58.00	5000	235	107	275	285	129	IAPKI
13	81.00	4500	260	118	300	310	141	IATES
15	76.00	2000	375	170	415	425	193	IATEV
16	75.00	2200	380	172	420	430	195	IATF1



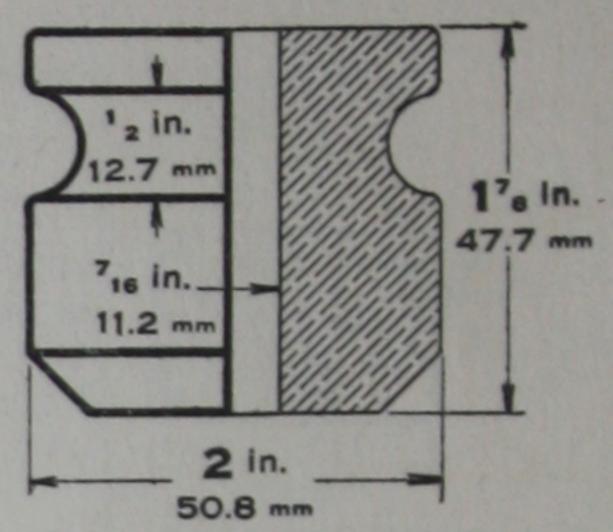
### SONS COMPANY



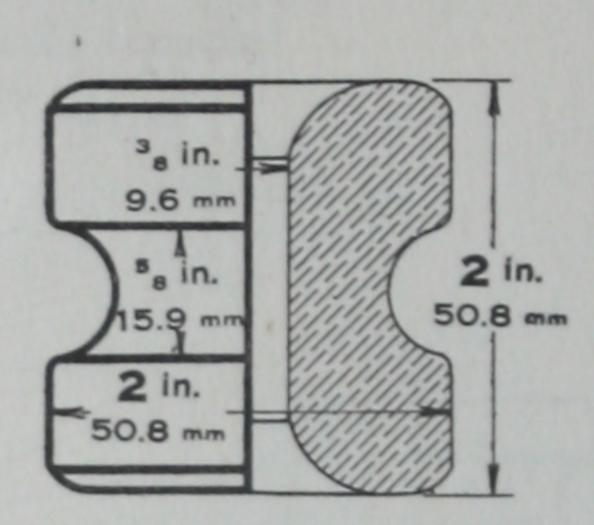
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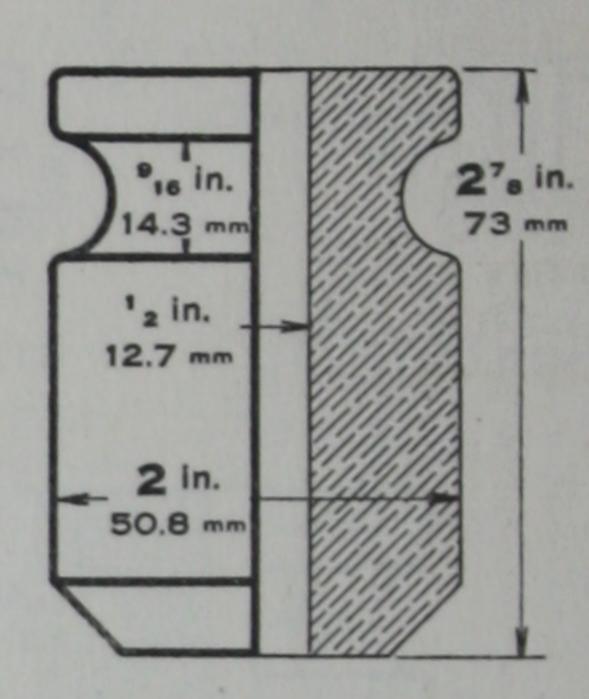
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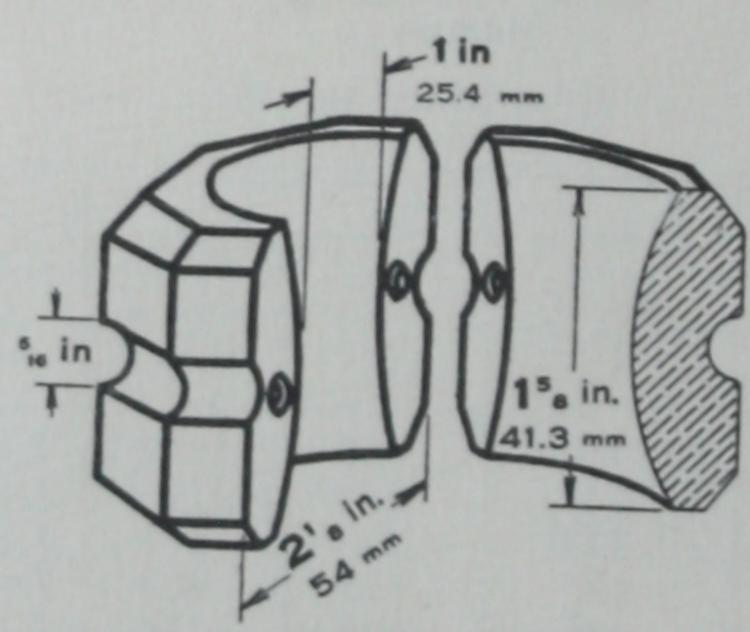
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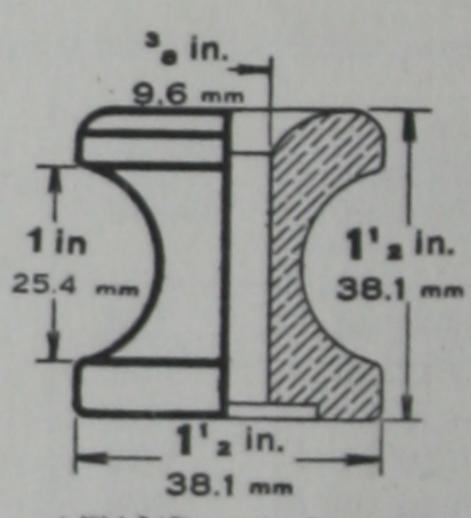
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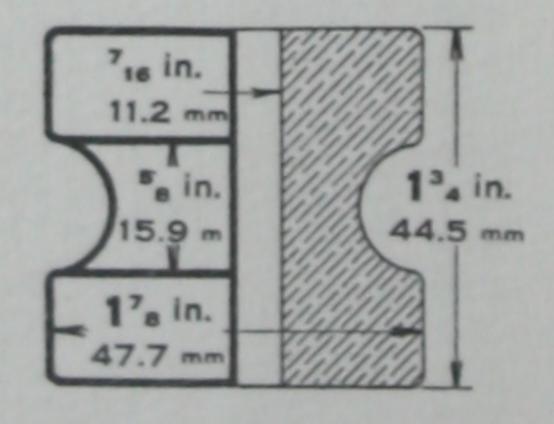
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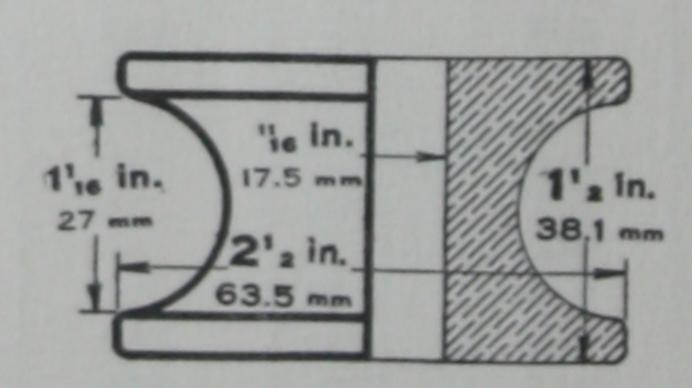
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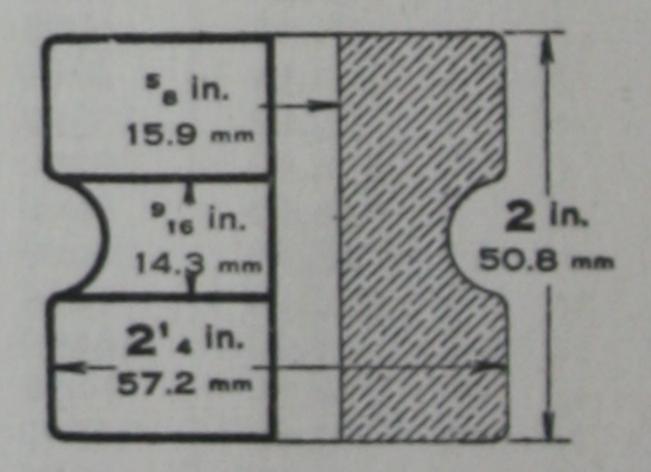
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STANDARD No. 24



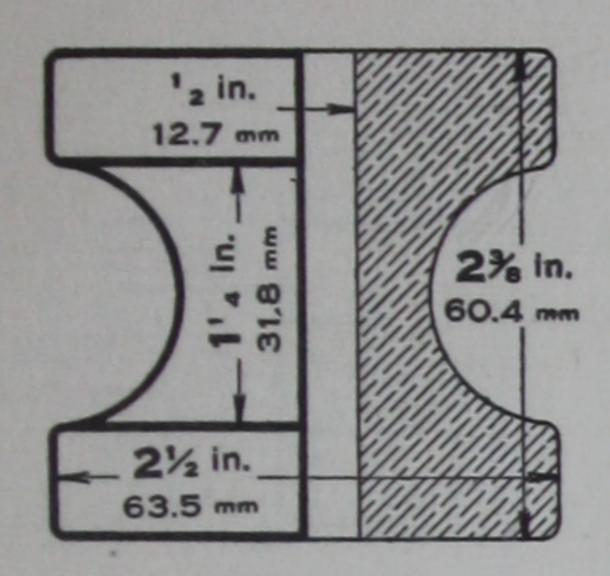
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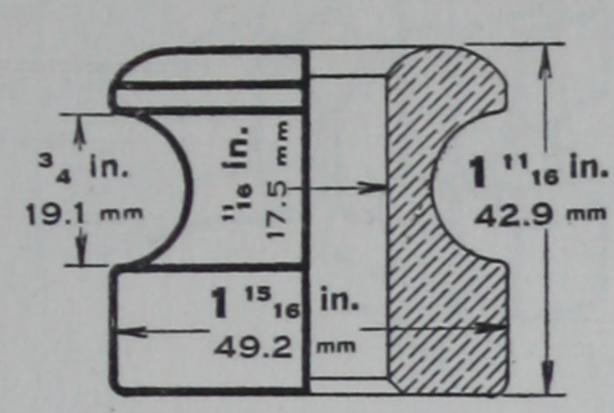
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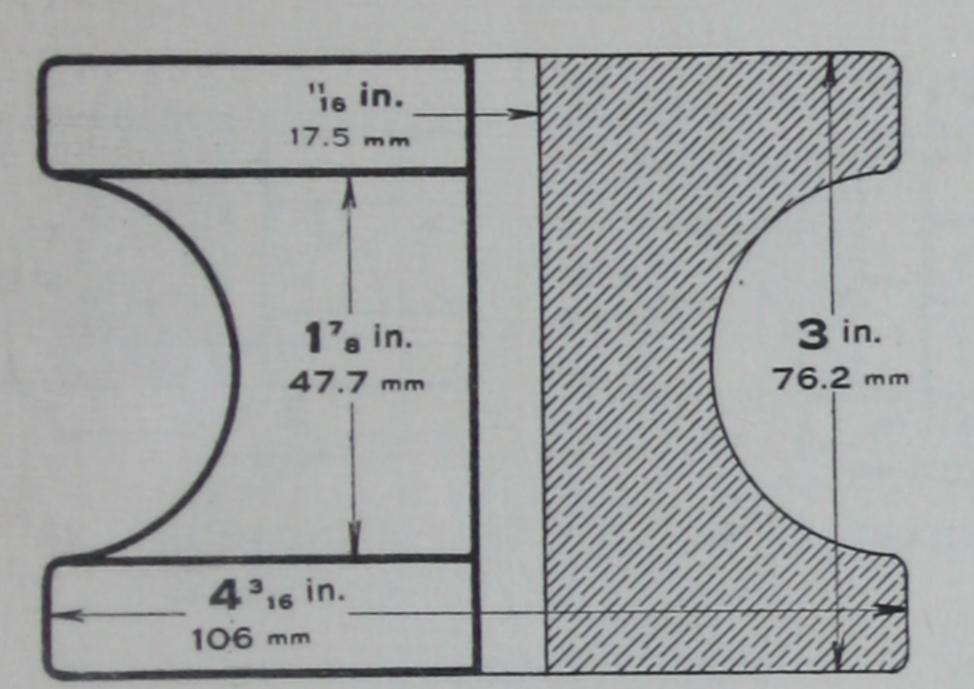
### SONS COMPANY



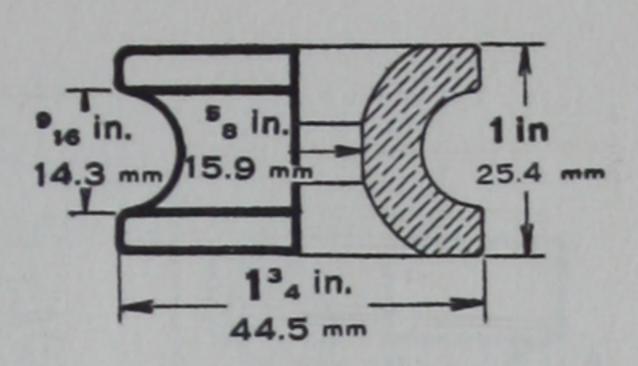
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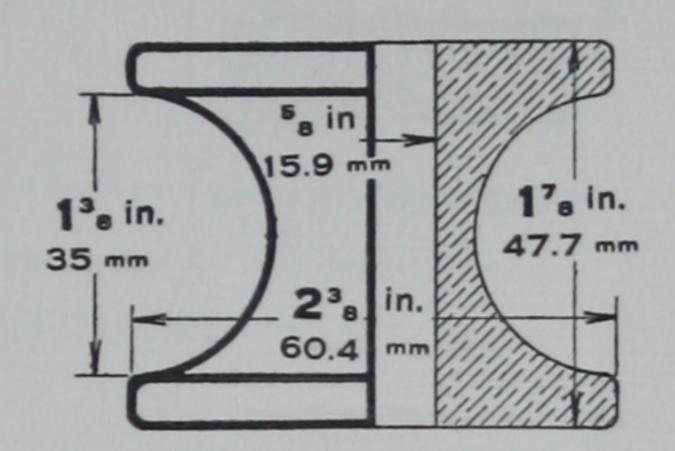
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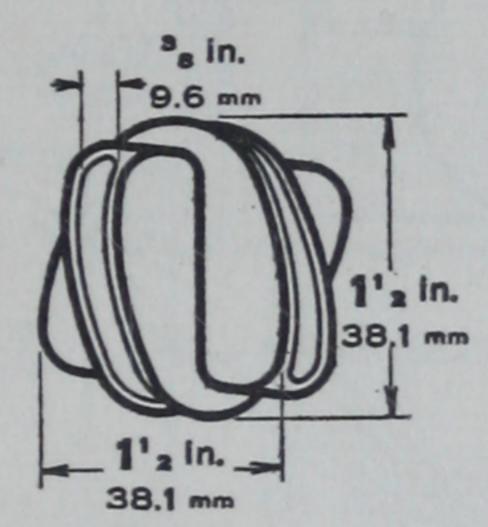
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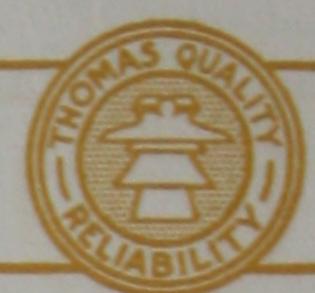


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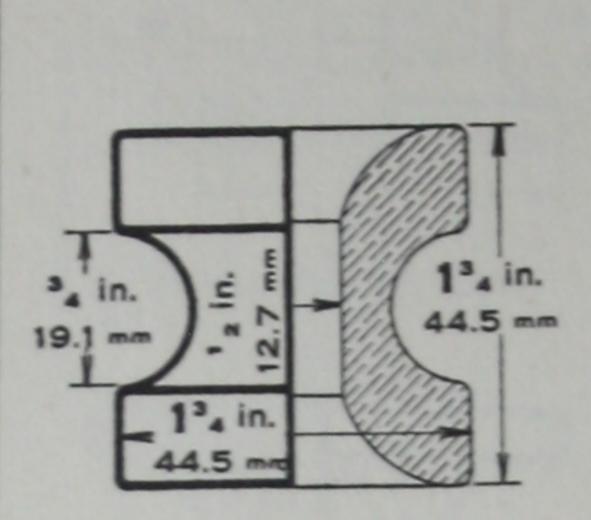


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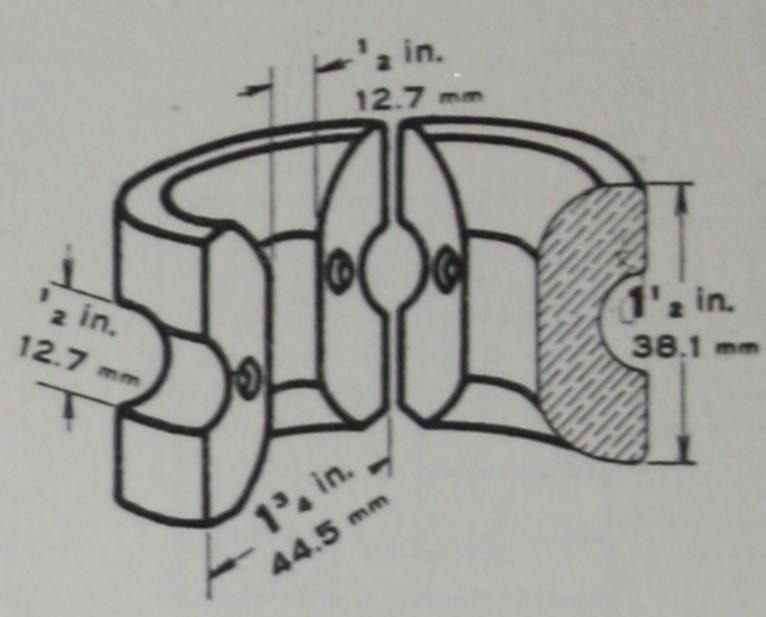
Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight P		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
17	\$75.00	1200	360	163	400	410	186	IATFY
18	60.00	3000	310	141	350	360	163	IBOEP
19	116.00	850	410	186	450	460	209	IBOES
20 21	130.00 170.00	1000	400 400	181 181	440	450	204 204	IBOEW
22	156.00	1000	360	163	400	450 410	186	IBO FA IBSEJ
23	76.00	2000	210	95	250	260	118	IBSEK
24	102.00	1200	385	175	425	435	197	IBSEN
25	142.00	750	290	132	330	340	154	IBSER
26	142.00	700	380	172	420	430	195	IBSET
29	200.00	500	360	163	400	410	186	IBUVO
30	102.00	1000	375	170	415	425	193	IBUVU
31	90.00	2100	210	95	250	260	113	IBUWI
32	655.00	130	285	129	325	335	152	IBUWI
34 35	176.00 275.00	1500	355 375	161 170	395 415	405 425	184 193	IBZIT IBZIV



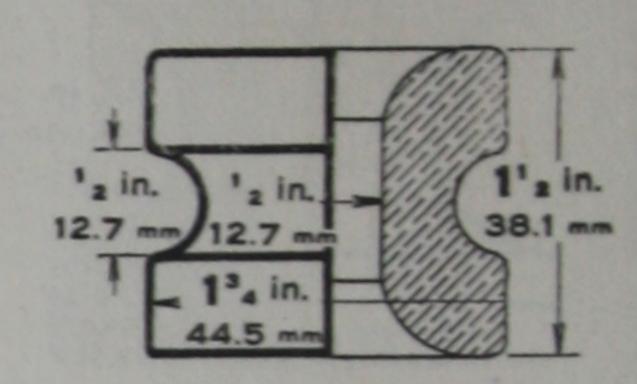
### SONS COMPANY.



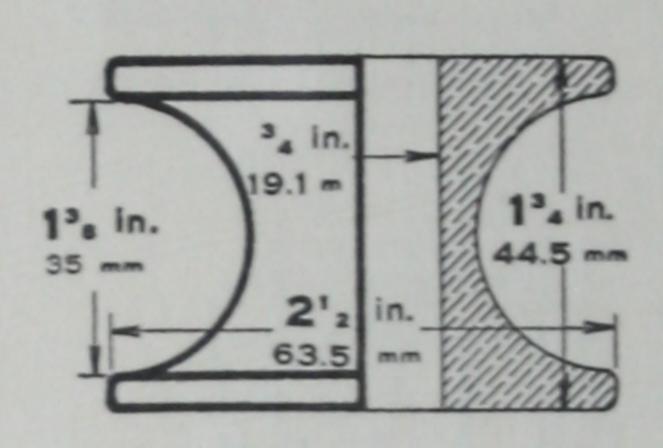
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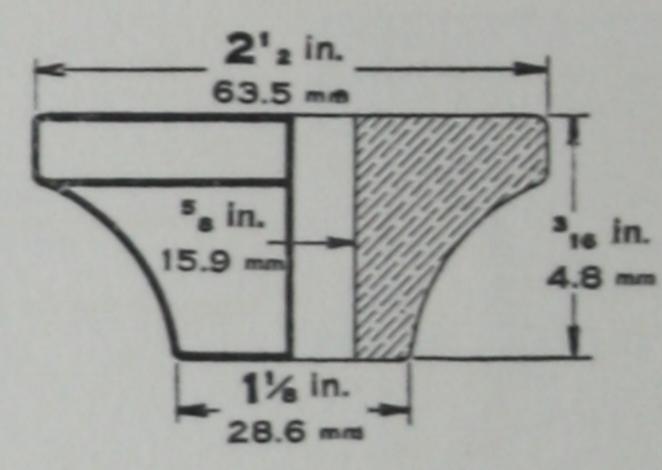
STANDARD No. 37 (Split)



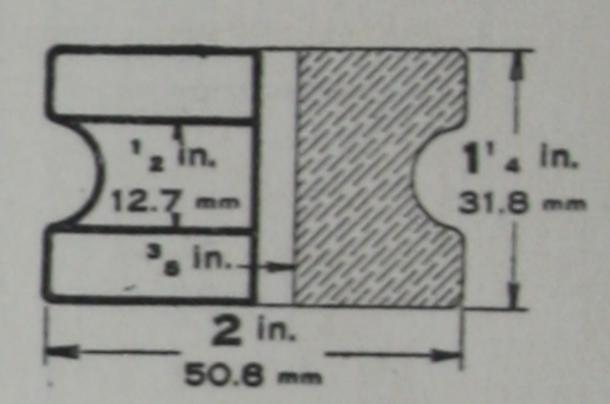
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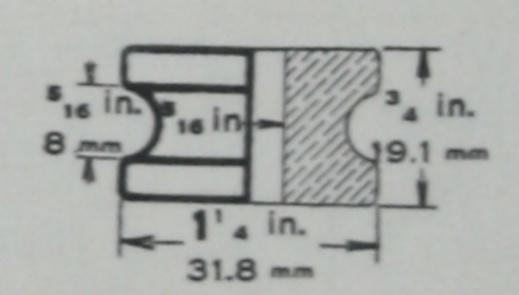
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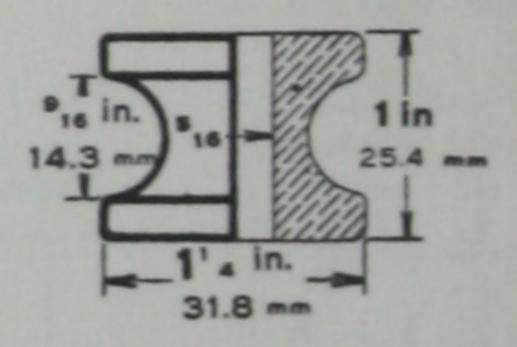
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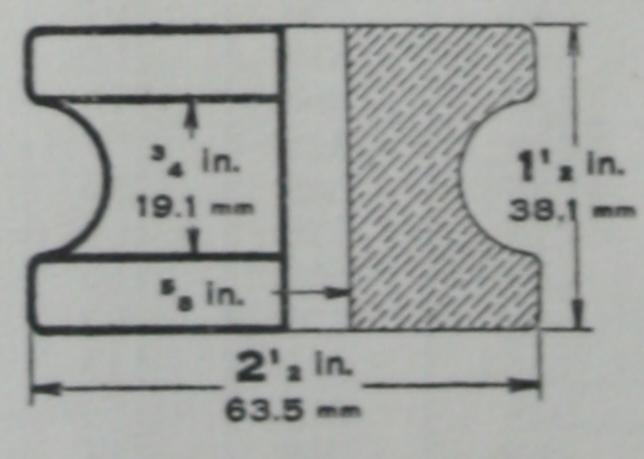
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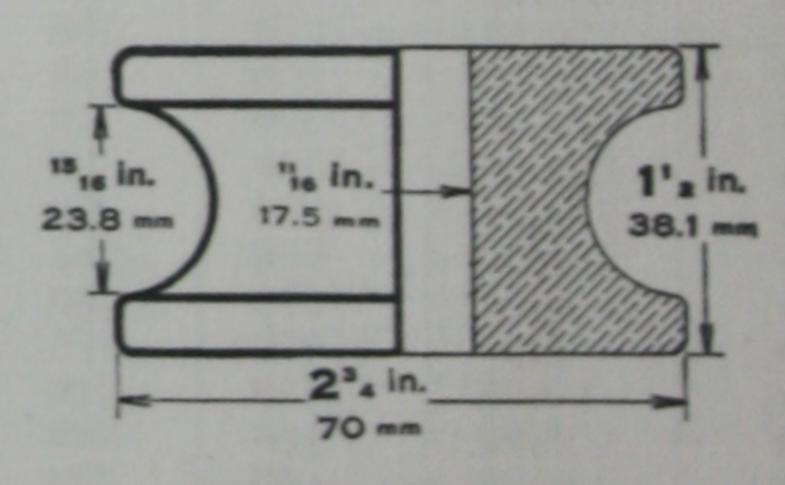
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STANDARD No. 46



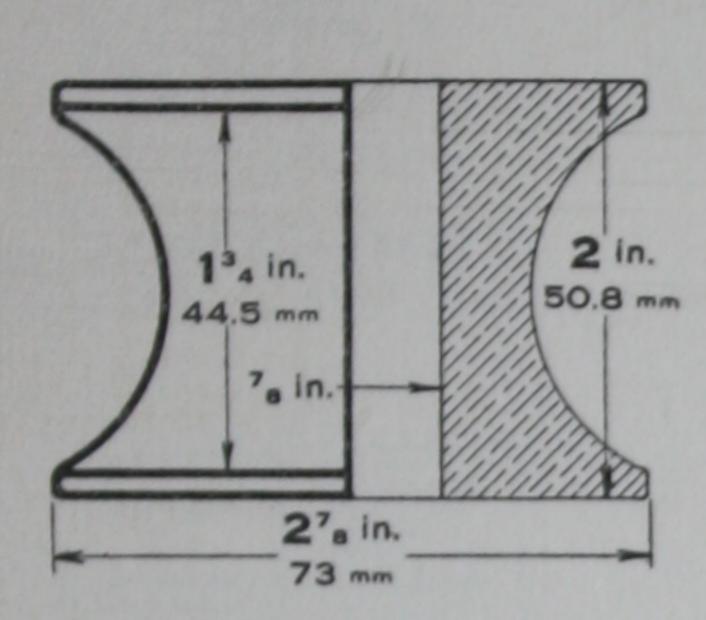
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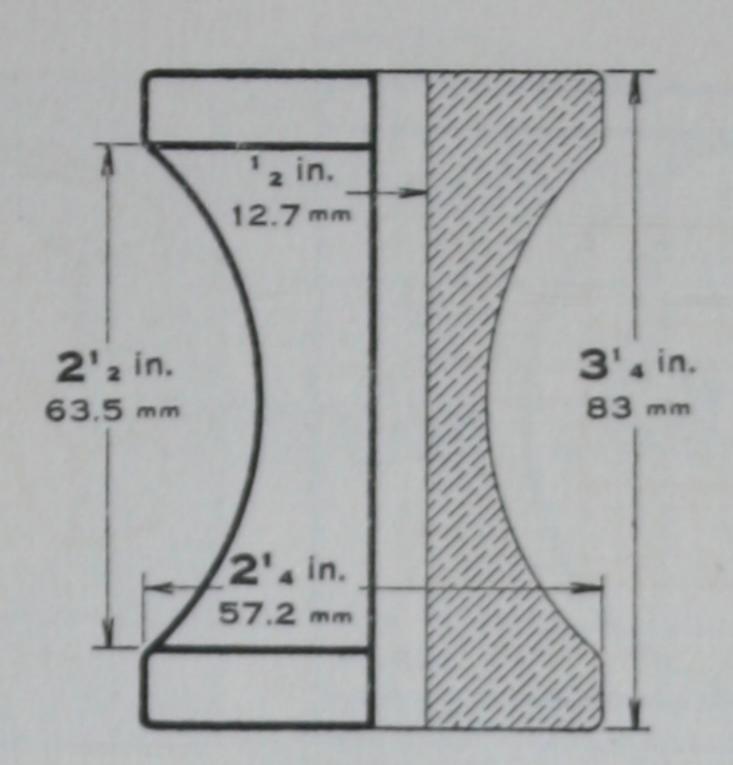
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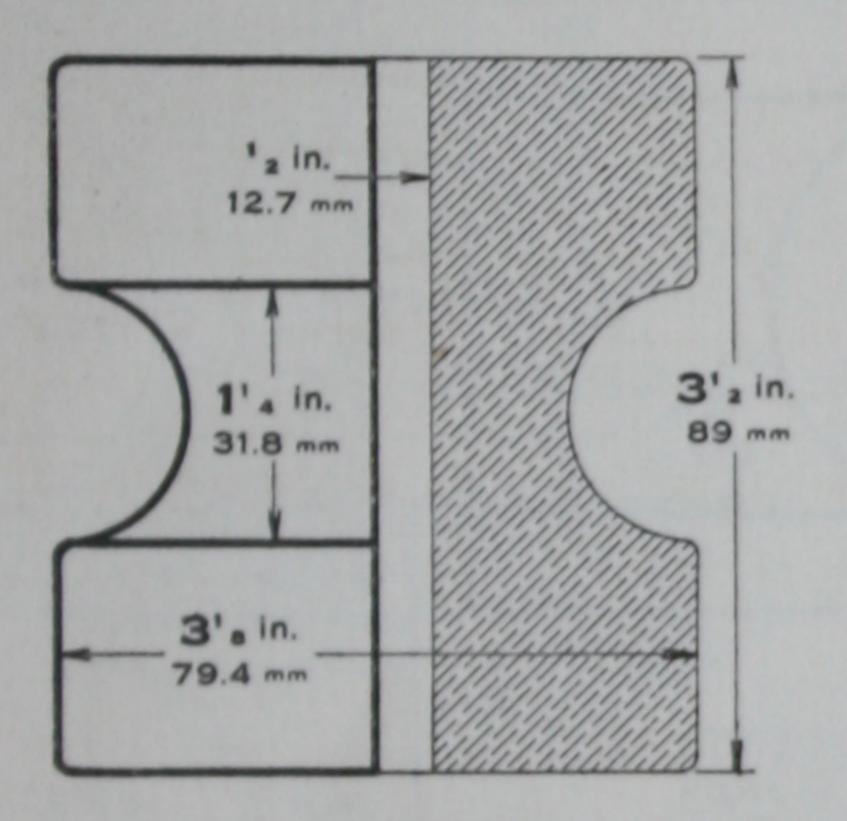
### THE R. THOMAS & ( SONS COMPANY



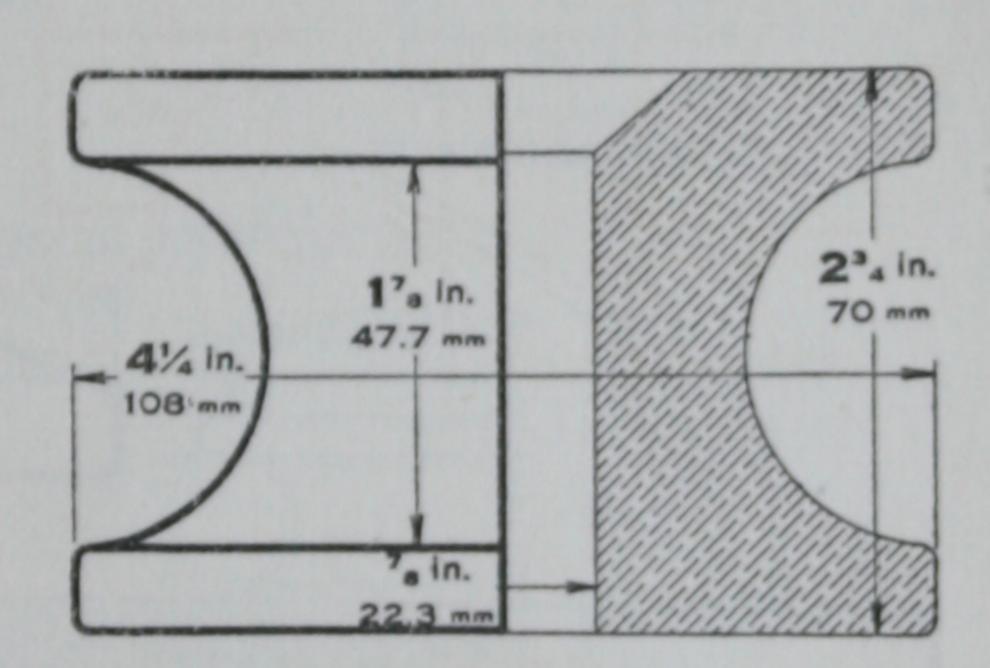
STANDARD No. 50



STANDARD No. 51



STANDARD No. 52



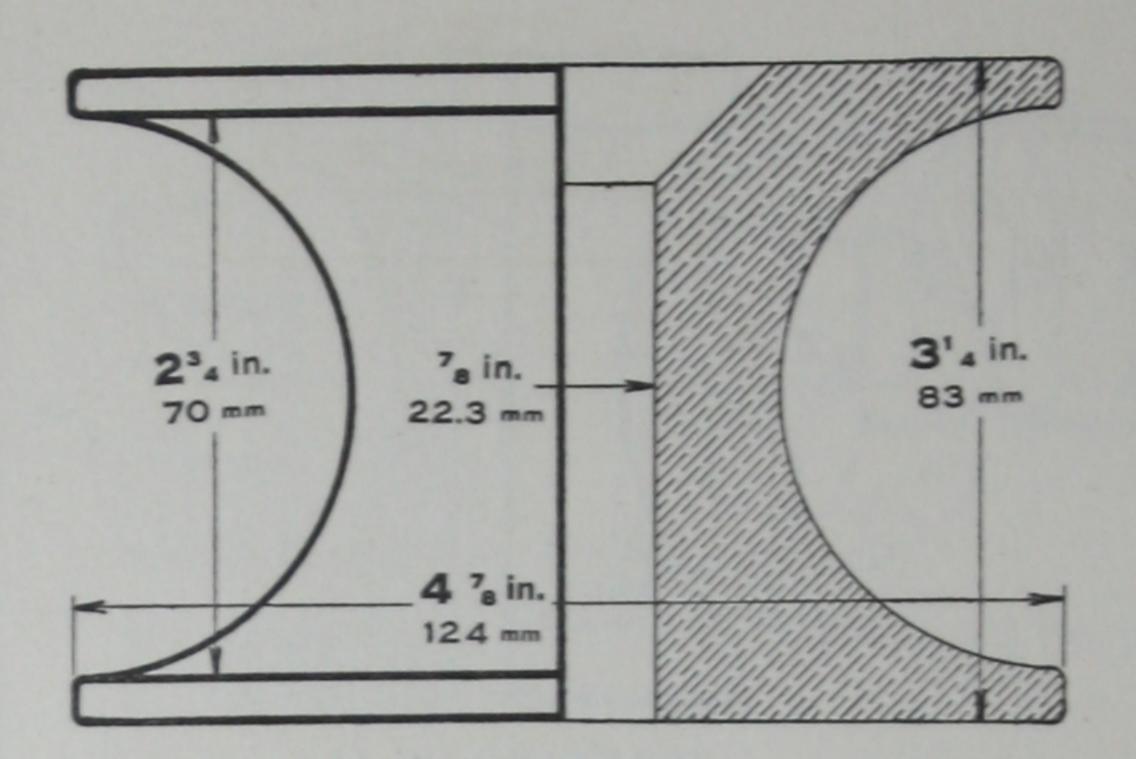
STANDARD No. 53

Standard	List Price	Number	Net W Per B		Domestic Gross Weight	Export Weight Pe		Code
No.	Per 1000	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
36	\$90.00	1500	375	170	415	425	193	IBZIX
37 split	114.00	1500	330	150	370	380	172	ICCEV
37solid	90.00	1500	330	150	370	380	172	IBZIZ
39	158.00	650	355	161	395	405	184	ICCIC
40	100.00	2000	360	163	400	410	186	ICCIF
41	95.00	1300	360	163	400	410	186	ICCIG
45	45.00	5000	260	118	300	310	141	ICFED
46	49.00	4500	310	141	350	360	163	ICFEH
48	142.00	850	410	186	450	460	209	ICFEJ
49	149.00	700	385	175	425	435	197	ICFEK
50	196.00	450	360	163	400	410	186	ICIIP
51	209.00	500	260	118	300	310	141	ICIIY
52	397.00	200	360	163	400	410	186	ICIJE
53	650.00	120	240	109	280	290	132	ICIJO

### THE R. THOMAS & (C)

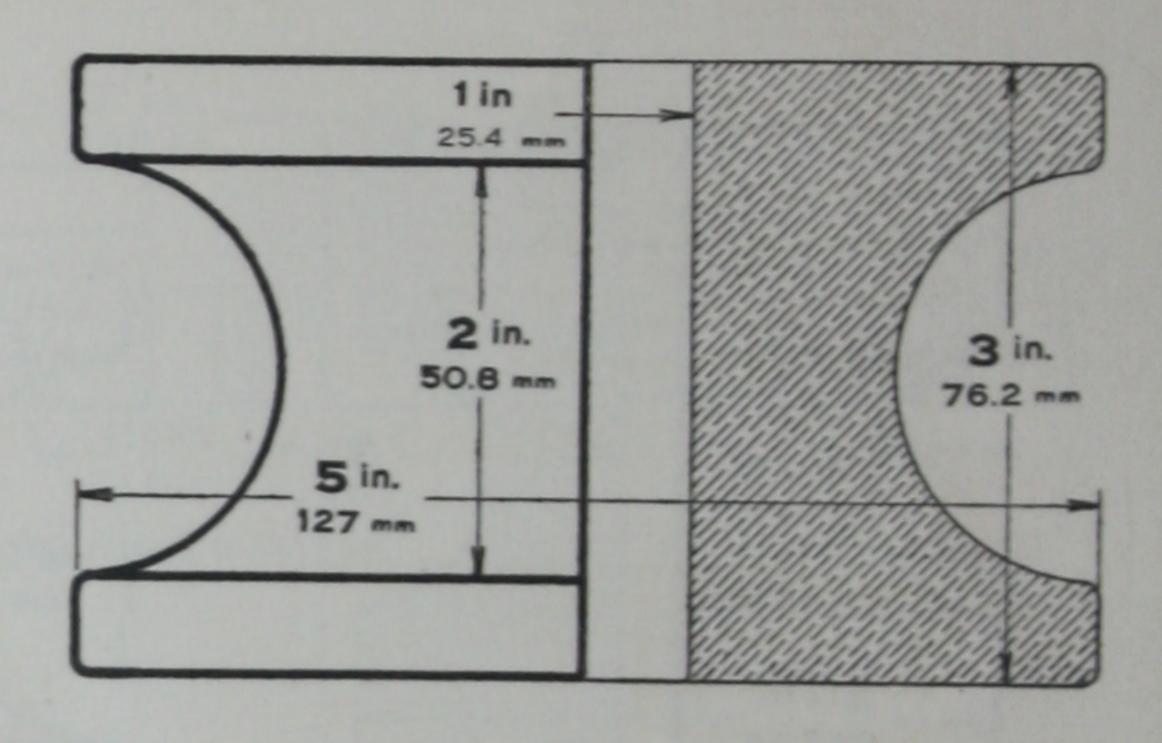


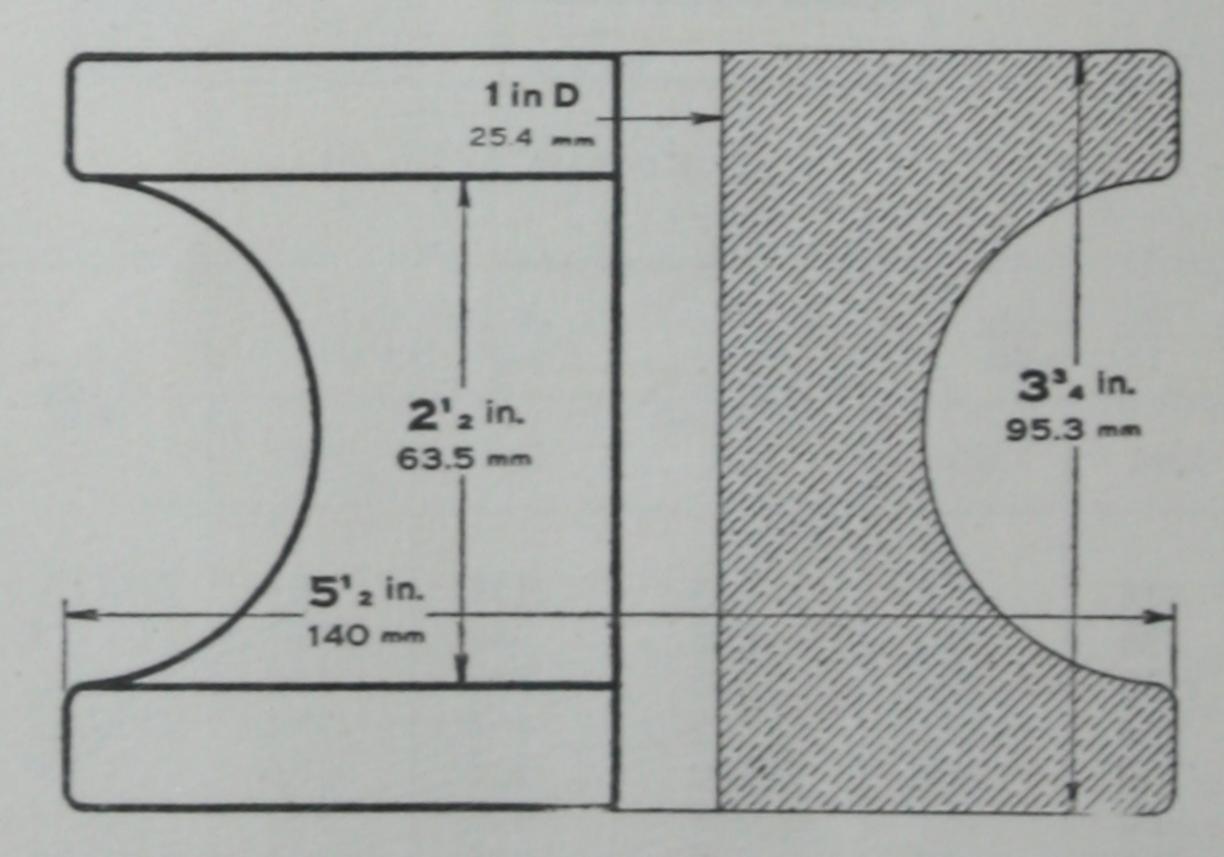
### SONS COMPANY



STANDARD No. 54

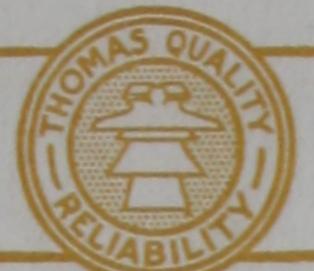
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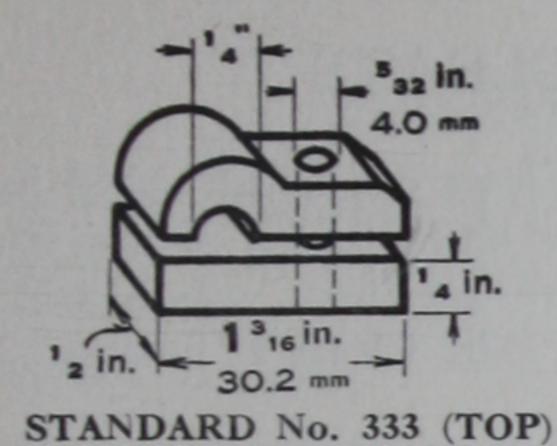


STANDARD No. 56

Standard List Price in		Number	Net W Per B		Domestic Gross Weight	Export Weight P	Code	
	Barrel	Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Code Word	
54 55 56	\$881.00 881.00 1355.00	105 100 75	260 285 285	118 129 129	300 325 325	310 335 335	141 152 152	ICLYB ICLYC ICLYF

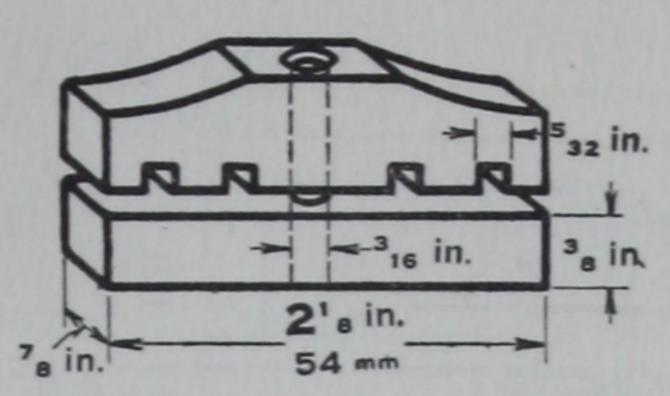


### SONS COMPANY

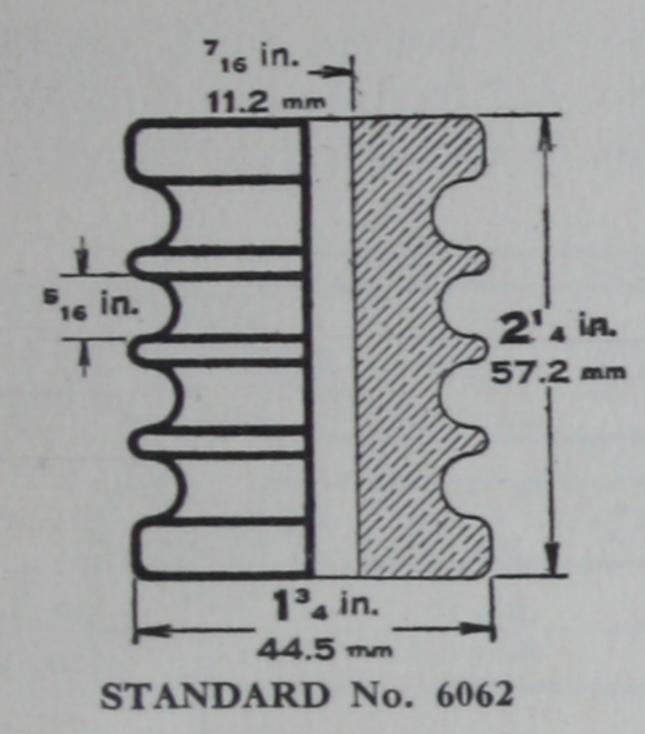


STANDARD No. 3331/2 (BASE)

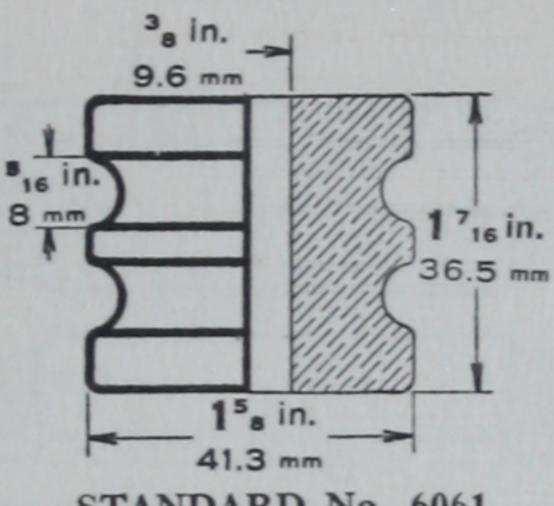
TELEPHONE CLEATS



STANDARD No. 314 (TOP) STANDARD No. 315 (BASE)

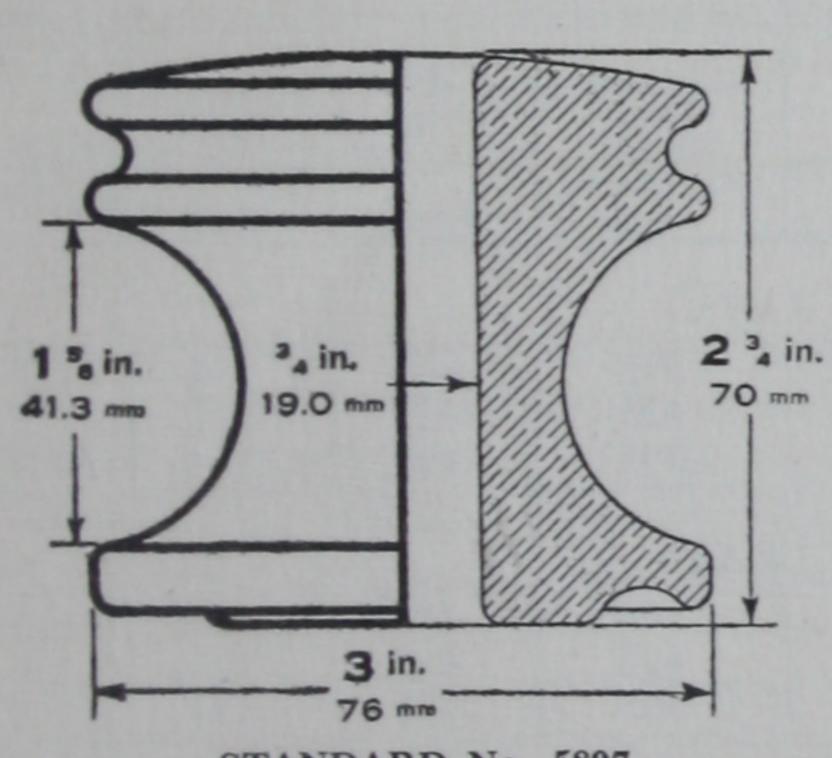


TELEPHONE KNOBS

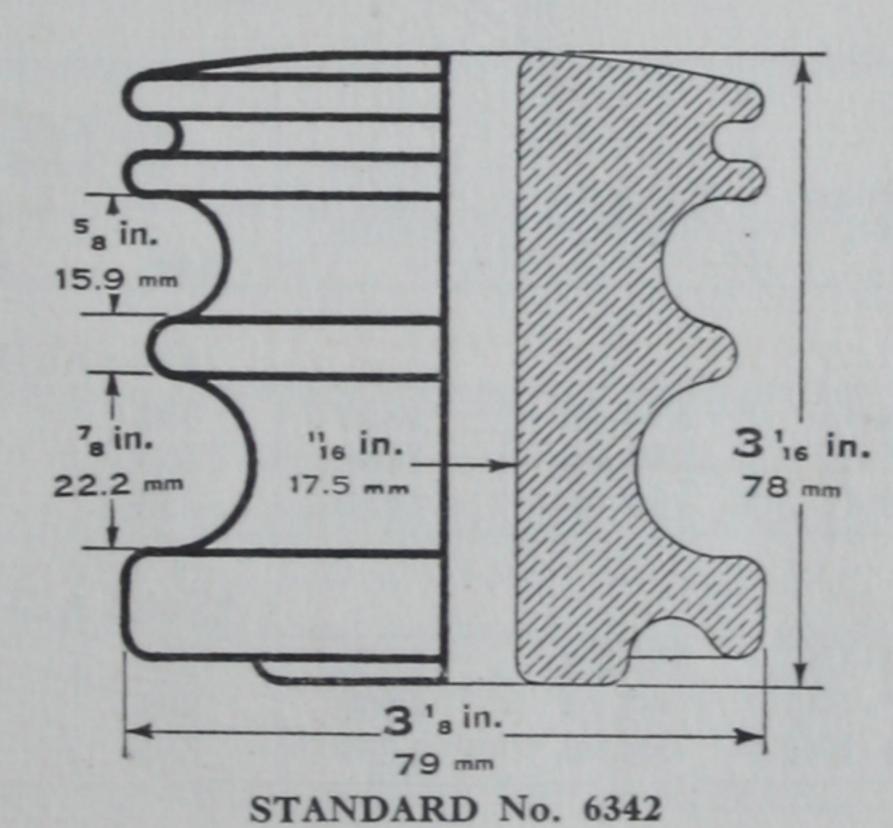


STANDARD No. 6061

#### SECONDARY RACK INSULATORS



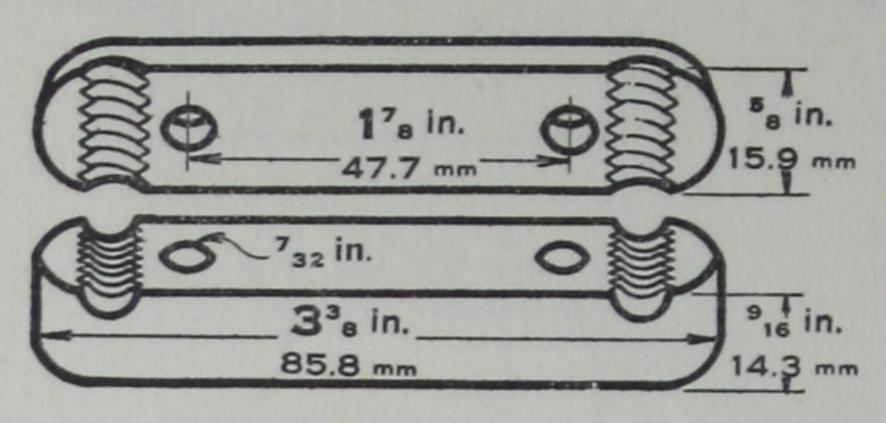
STANDARD No. 5897



Export Gross Net Weight Domestic Weight Per Barrel Per Barrel Gross Number Weight Code List Price in Standard Word Per Barrel Barrel Per 1000 No. Lbs. Kgs. Lbs. Lbs. Kgs. I COWO 163 350 360 310 141 3000 \$46.00 314 175 ICTFY152 385 375 335 3000 44.00 315 ICTGA 215 465 425 193 475 21500 23.00 333 220 ICTGI435 197 475 485 20.00 22000 333 1/2 455 465 211 ICLYG415 188 88.00 2000 6061 ICOWK 385 175 335 375 152 1000 150.00 6062 141 163 ICOWL 310 350 360 300 360.00 5897 177 ICOWM154 390 340 380 390.00 290 6342



#### TWO AND THREE WIRE CLEATS

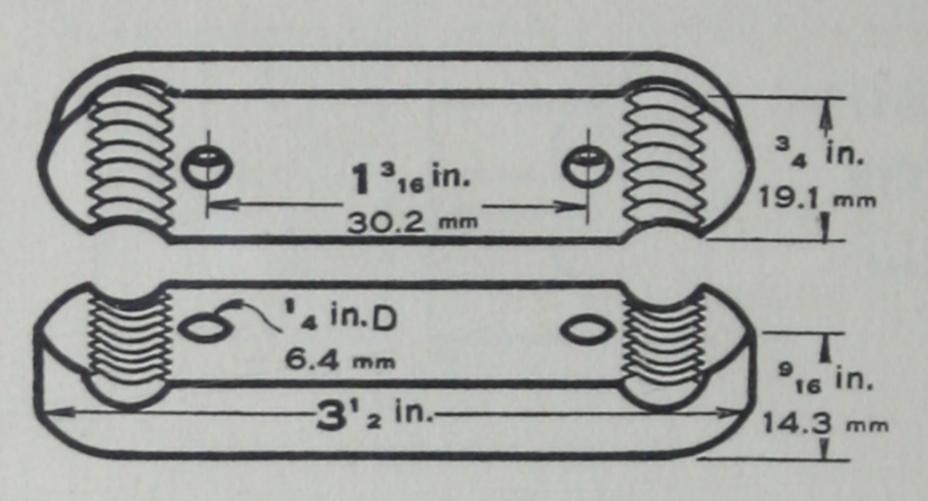


STANDARD No. 334

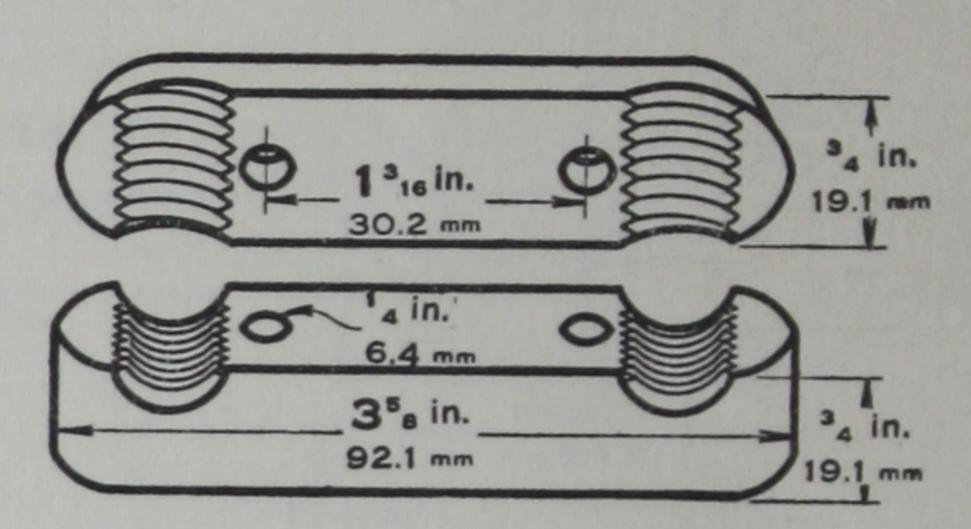
Three Wire Cleats can be furnished in all the designs listed on this page. Unless Three Wire Cleats are specified, orders will be filled with Two Wire Cleats as illustrated.

#### WIRE SIZES

Standard No. 334 receives No. 12 to No. 14 Standard No. 335 receives No. 8 to No. 10 Standard No. 350 receives No. 2 to No. 6



STANDARD No. 335



STANDARD No. 350

Standard List Price		Number	Net W Per B		Domestic Gross Weight	Export Weight P	Gross er Barrel	Code
No.	No. Per 1000 Barrel		Lbs.	Kgs.	Per Barrel Lbs.	Lbs.	Kgs.	Word
			GLAZ	ZED CLE	CATS			
334-G 335-G 350-G	\$90.00 100.00 150.00	1850 1500 1250	355 161 385 175		395 425 395	405   184   435   197   405   184		ICVUP ICVUS IDAFI
			UNGLA	AZED CI	LEATS			
334-UG 335-UG 350-UG	\$52.00 60.00 88.00	1850 1500 1250	355 385 355	161 175 161	395 425 395	405 435 405	184 197 184	ICTGY ICVUL ICVUM

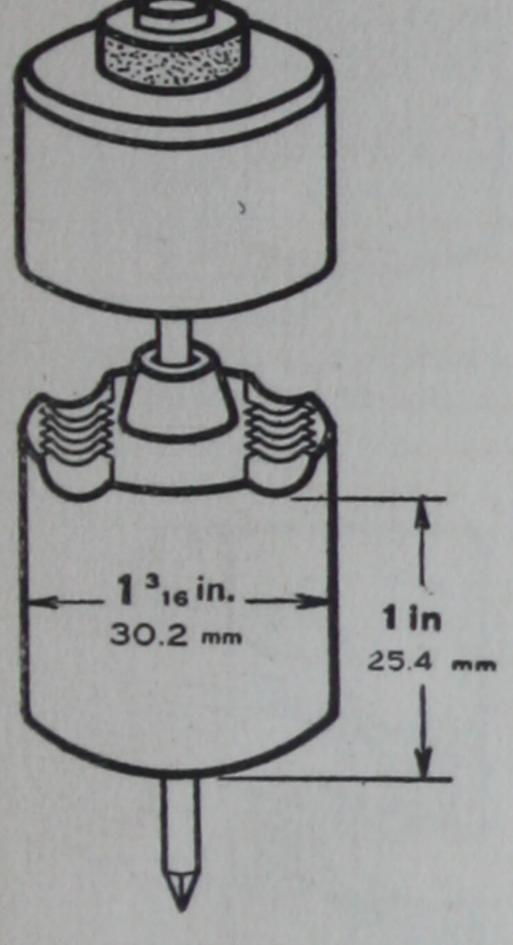
#### MILL CLEATS

The following designs are exactly the same as those listed above excepting that Cleats with a heavy one inch (1") base are furnished. These are extremely valuable for construction in damp places or where cleats are attached to metal supports as in Mills, Foundries, etc.

2211/2			GLAZ	ED CLE	ATS			
334½-G 335½-G 350½-G	\$135.00 150.00 225.00	1400 1100 850	360 380 350	163 172 159	400 420 390	410 430 400	186 195 182	IDCEW IDCID IDCIJ
			UNGLA	ZED CL	EATS			
334½-UG 335½-UG 350½-UG	90.00	1400 1100 850	360 380 350	163 172 159	400 420 390	410 430 400	186 195 182	IDA FY IDA GA

#### ASSEMBLED WIRING KNOBS

The Assembled Wiring Knob needs little or no introduction since it has been so favorably accepted as the Standard Economic Wire Supporting Fixture. Although quite an inexpensive article, it is most desirable for its time saving qualities, its compactness, efficiency and appearance.

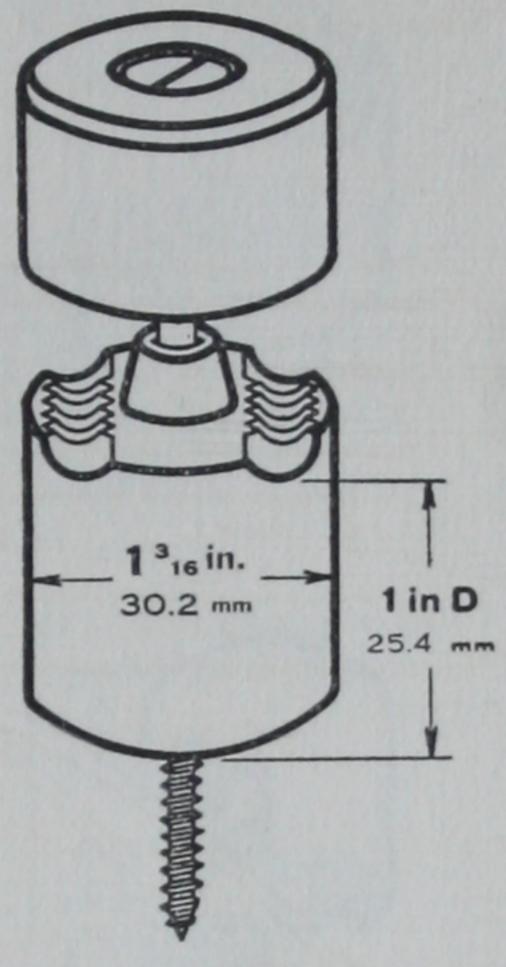


NAIL ASSEMBLED KNOB
Code Word IDCIK

List Price per 1,000 Assembled Knobs

Nail Assembled . . \$70.00 Screw Assembled . . 90.00

For 12 to 14 Wire

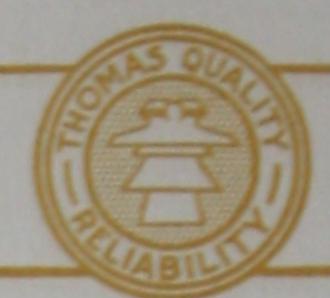


SCREW ASSEMBLED KNOB
Code Word—IDCIN

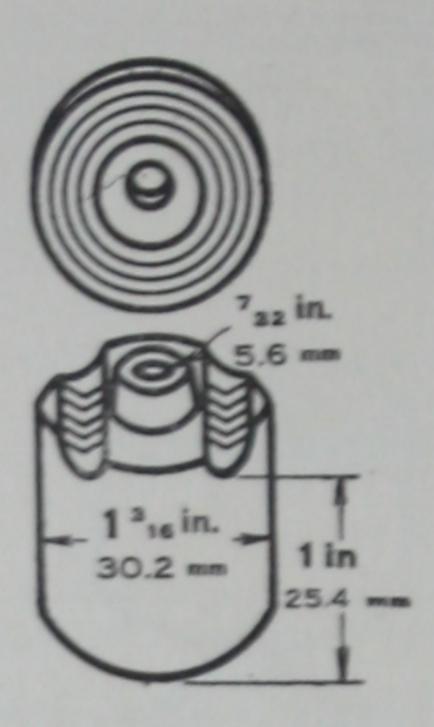
The Thomas Nail Assembled Knob is designed to stand the real test of service. It is fool-proof. Every member used in its make-up is of the best. It is so constructed as to withstand the accidental or mis-directed blow of the hammer or other sound object; when installed they will stay put; will clamp the wire and grip it tightly although the rounded edges prevent the porcelain from cutting into the cable and shearing it off. This Knob can be installed in any position with ease and the nail may be driven home regardless of the position of the rotary cap with respect to its base. The extremely heavy leather washer under the head of the nail permits of excessive pounding without fear of shattering the porcelain. The ten penny bright steel nails used are carefully selected from stout steel stock. A blow—and the nail bites in. No bending or breaking but ever sturdy, straight and true. Standard packing for both Nail and Screw Assembled Knobs is as follows:

#### PACKING

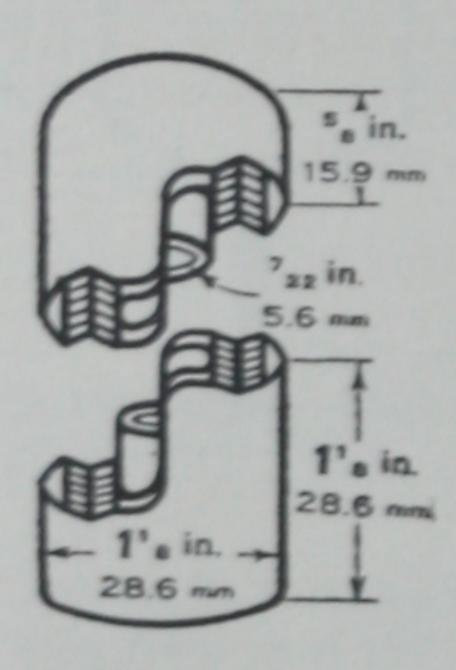
Standard Number in Package	_	Net We Pack	ight of age	Domestic Gross Weight of	Export Gross Weight of Package		
	Lbs.	Kgs.	Package Lbs.	Lbs.	Kgs.		
Barrel	2900	440	200	480	490	222	



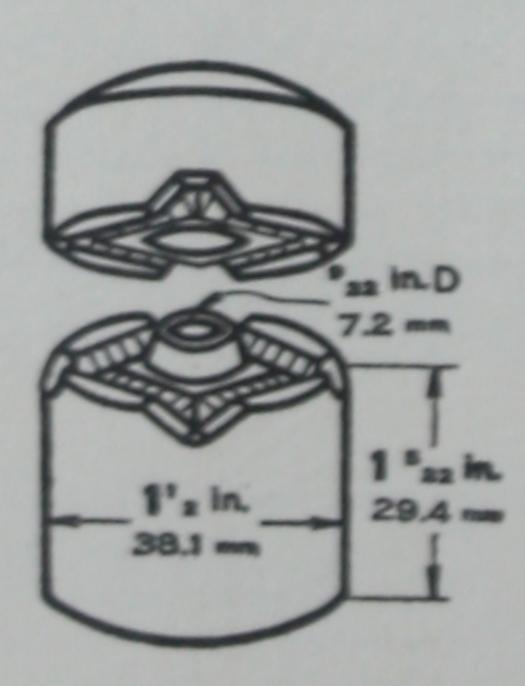
#### SPLIT WIRING KNOBS



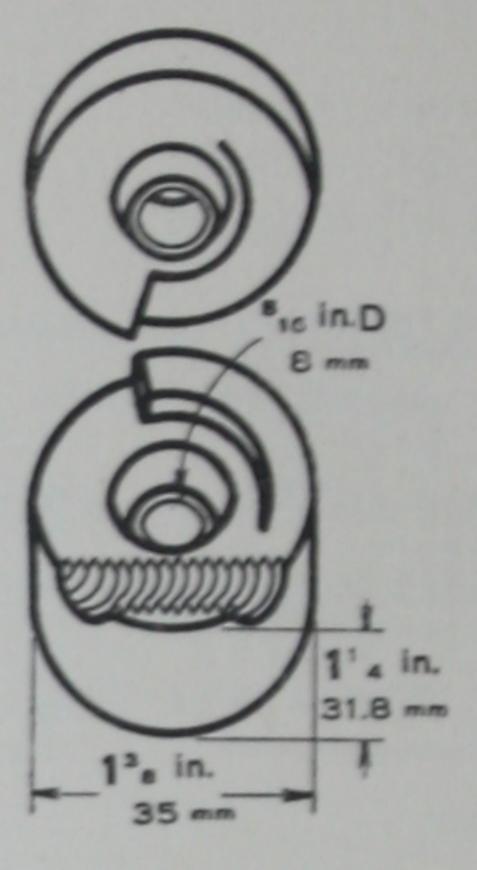
STANDARD No. 51/2 (New Code) For 12 to 14 Wire



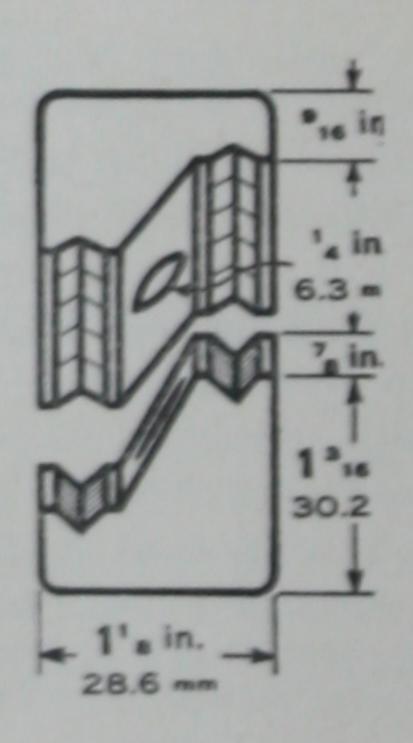
STANDARD No. 101 For 12 to 14 Wire



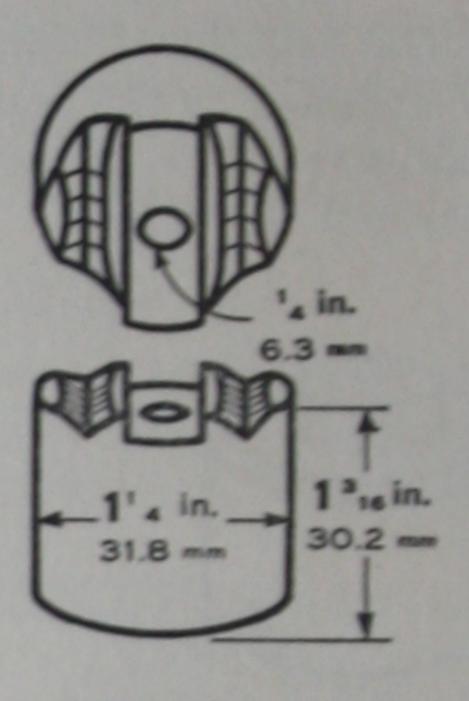
STANDARD No. 9419 For 10 to 12 Wire



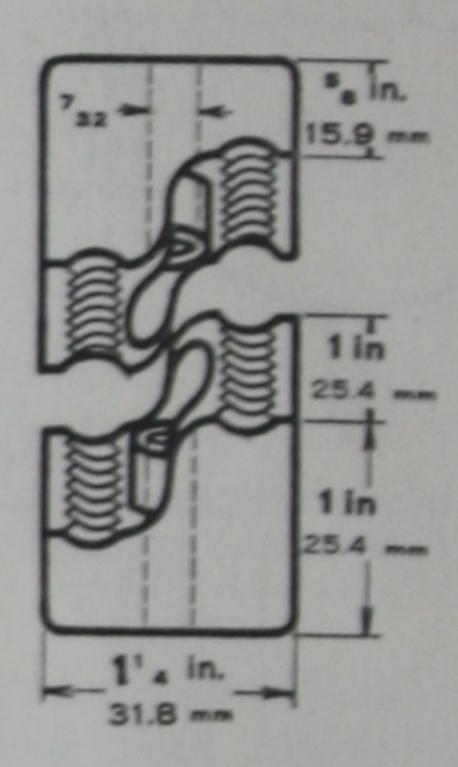
STANDARD No. 233 (Security) For 12 to 14 Wire



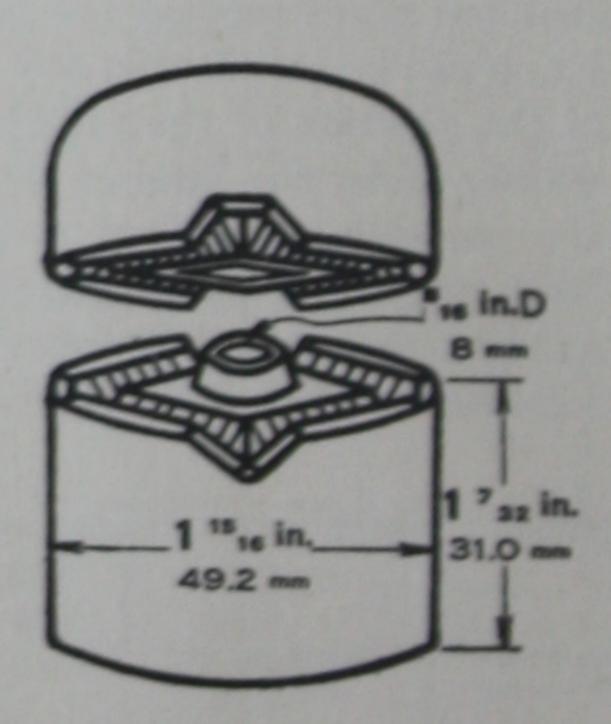
STANDARD MIDGET (Reversible) For 12 to 14 Wire



STANDARD DETROIT For 12 to 14 Wire



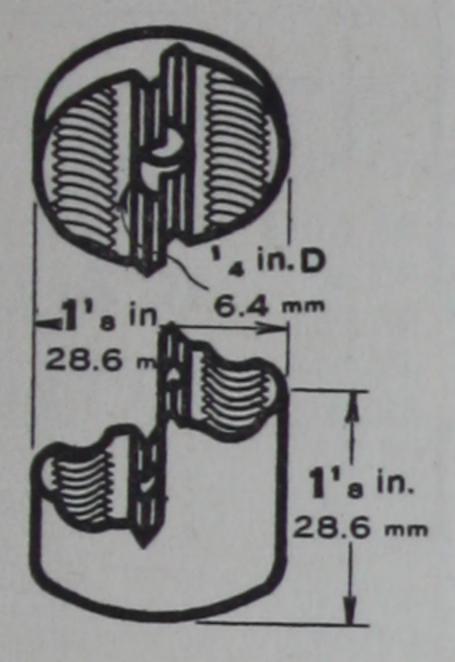
STANDARD No. 551/2 (Reversible) (Sur For 12 to 14 Wire



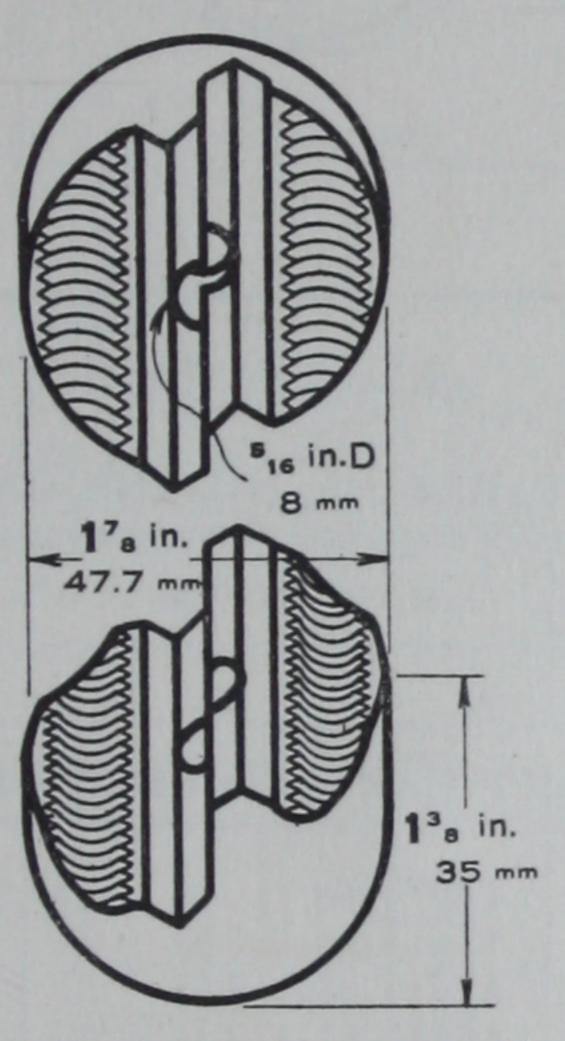
STANDARD No. 9420 For 4 to 6 Wire



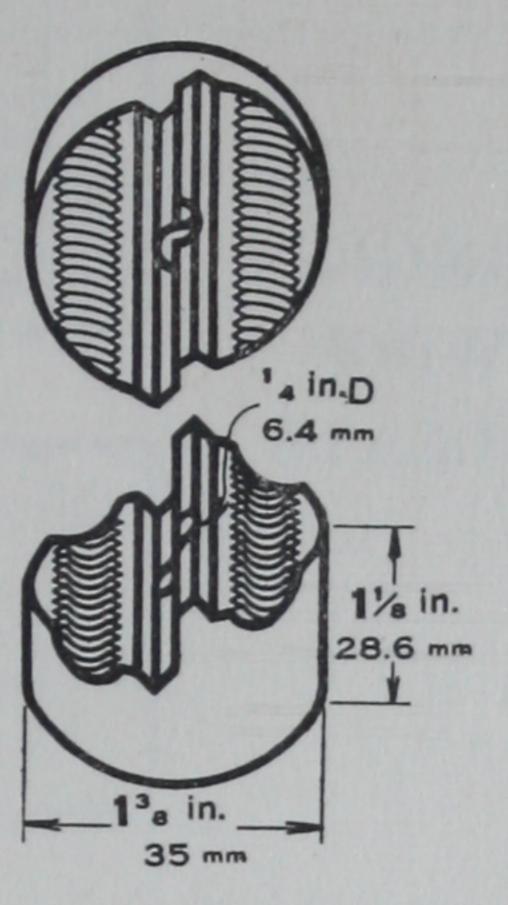
#### SPLIT WIRING KNOBS



STANDARD No. 5517 For 12 to 14 Wire



STANDARD No. 5147 For 4 to 6 Wire



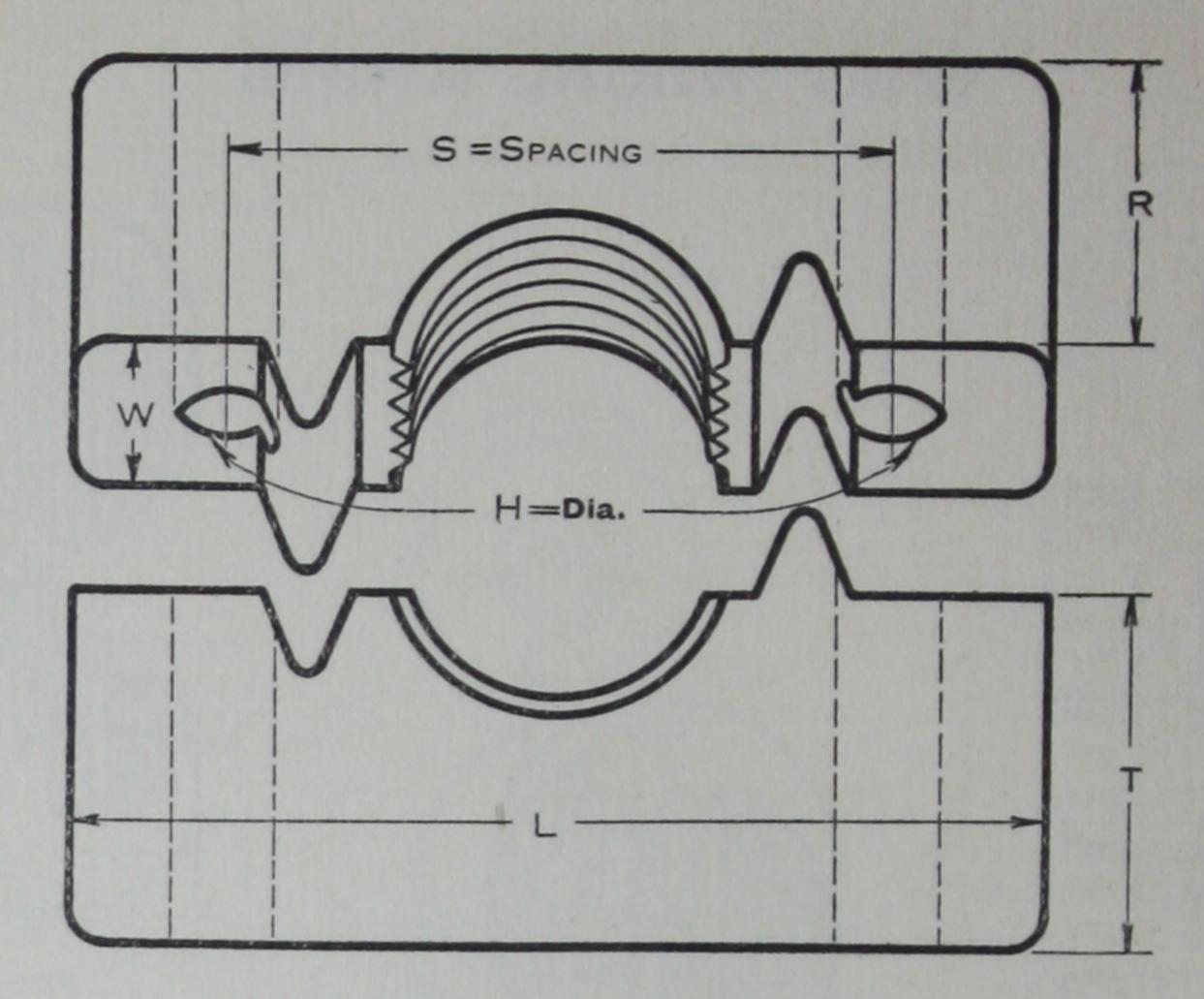
STANDARD No. 5135 For 8 to 10 Wire

Standard	List Price	Number		Weight Barrel	Domestic Gross Weight	Export Weight P	Code		
No.	Per 1000 Barrel		Lbs.	Kgs.	Per Barrel Lbs.	Lbs. Kgs.		Word	
51/2	\$52.00	3000	375	170	415	425	193	IDEFE	
33	76.00	1500	395	179	435	445	202	IDE FO	
551/2	75.00	2500	370	168	410	420	191	IDEFT	
101	62.00	3000	410	186	450	460	209	IDEFU	
5135	110.00	1500	370	168	410	420	191	ID FEC	
5147	160.00	900	390	177	430	440	200	ID FE F	
5517	75.00	3750	425	193	465	475	215	ID FEG	
9419	87.00	1500	375	170	415	425	193	IDFEL	
9420	142.00	875	390	177	430	440	200	IDHIM	
Detroit	62.00	3000	410	186	450	460	209	IDHIP	
Midget	62.00	4000	460	209	500	510	231	IDHIS	



### SONS COMPANY

SINGLE WIRE CLEATS



B. & D.
STYLE

CLEATS No. 110-129

#### TABLE OF DIMENSIONS

Nı	ımbers	L		S		W		Н		R		T		
New	Old	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	
	LIGHT CAP AND LIGHT BASE													
110 111 112 113 114	1 -Reg. 1½-Reg. 2 -Reg. 2½-Reg. 3 -Reg.	1 15/6 2 1/4 2 1/4 2 1/6 3 1/8	49 57 57 68 79	13/6 11/2 13/8 15/8 17/8	30 38 35 41 48	13/6 15/6 13/6 13/6 11/4	21 24 27 30 32	1/4 5/16 5/16 5/16 3/8	6 8 8 8 10	1 1 1 8 1 1 8	15 17 21 24 29	19 32 11/16 13/16 15/16 11/8	15 17 21 24 29	
LIGHT CAP AND HEAVY BASE														
115 116 117 118 119	1 -A 1½-A 2 -A 2½-A 3 -A	1 15/16 2 1/4 2 11/4 2 11/16 3 1/8	49 57 57 68 79	13/6 11/2 13/8 15/8 17/8	30 38 35 41 48	13/6 15/6 13/6 13/6 11/4	21 24 27 30 32	1/4 5/16 5/16 5/16 3/8	6 8 8 8 10	1 1 1 8 1 1 8	15 17 21 24 29	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4	27 28 30 32 32	
			HEA	VY CA	P Al	ND HE	AVY	BASE						
120 121 122 123 124 125 126 127 128 129	1 -B 1½-B 2½-B 3½-B 3½-B 4 -B 4½-B 4½-B 4½-B	1 15/16 2 1/4 2 1/4 2 1/16 3 1/8 3 1/4 3 3/16 3 3/4 5 5/15	49 57 57 68 79 83 81 95 127 138	13/8 11/2 13/8 15/8 15/8 25/8 23/8 23/8 33/8 35/8	30 38 35 41 48 59 56 60 86 92	13/6 15/6 13/6 13/6 15/6 15/6 15/6 13/8 17/8 2	21 24 27 30 32 33 35 49 51	1/4/6/5/6/8/8/8/8/8/8/8/8/8/8/8/8/8/8/8/8/8	6 8 8 10 10 10 10 14 14	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4 1 1/4 1 1/4 1 1/4 1 1/6 1 1/6 1 1/6	27 28 30 32 32 32 35 38 43 46	1 1/6 1 3/2 1 3/6 1 1/4 1 1/4 1 1/4 1 1/4 1 1/6 1 1/6 1 1/6	27 28 30 32 32 32 35 38 43 46	

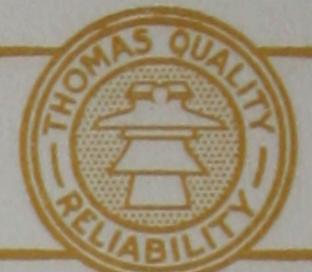
#### SINGLE WIRE CLEATS—B. & D. STYLE

#### PRICE LIST AND WIRE TABLE

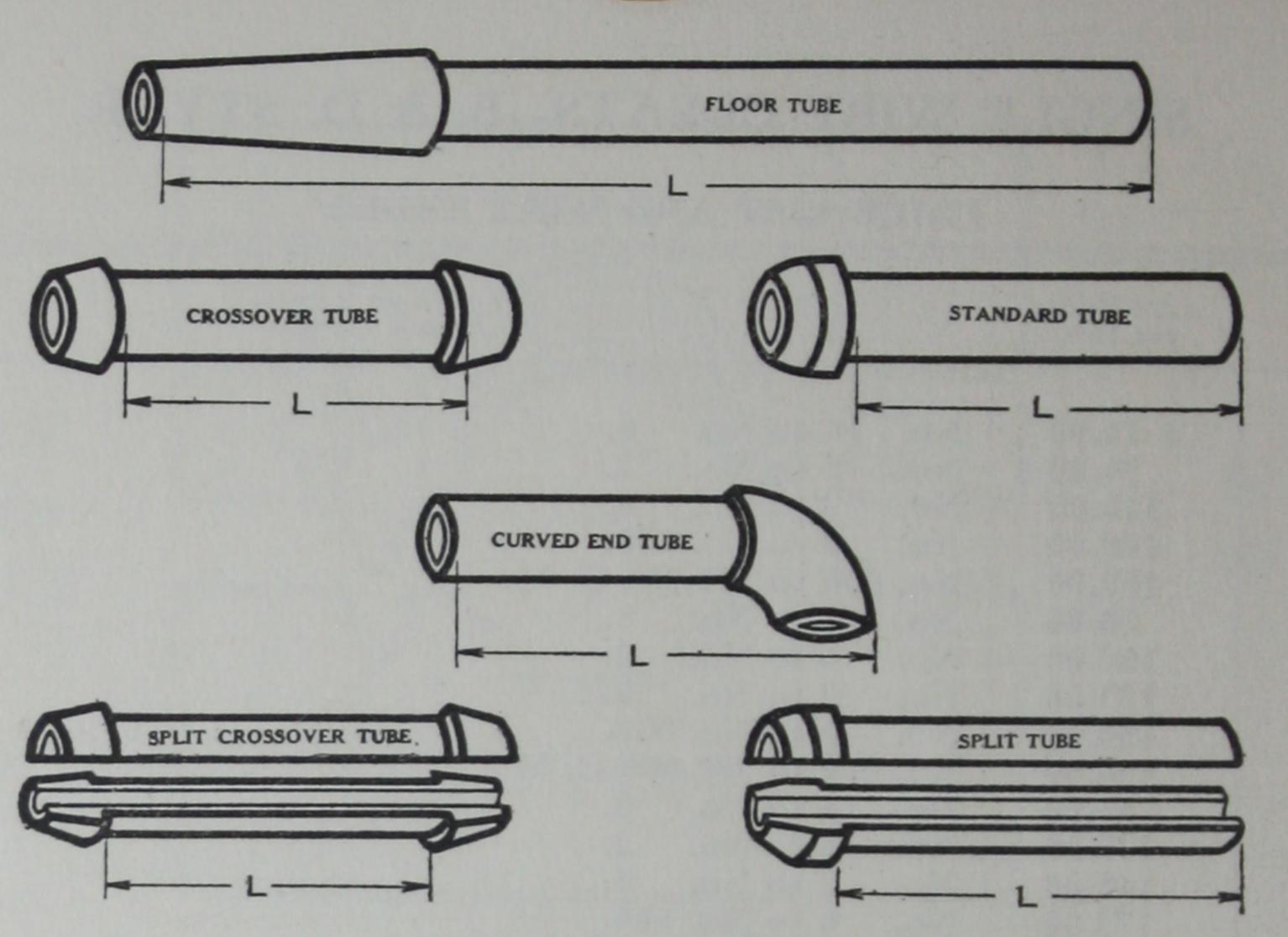
Catalog Numbers	List Price per 1000	Size of Wire Received B. & S. Gauge
110.	\$ 74.00	No. 14 to No. 6.
111.	96.00	No. 6 to No. 2.
112.	110.00	No. 2 to No. 0.
113.	140.00	No. 0 to No. 000.
114.	180.00	No. 000 to 200,000 C. M.
115.	80.00	No. 14 to No. 6.
116.	108.00	No. 6 to No. 2.
117.	125.00	No. 2 to No. 0.
118.	156.00	No. 0 to No. 000.
119.	196.00	No. 000 to 200,000 C. M.
120.	86.00	No. 14 to No. 6.
121.	120.00	No. 6 to No. 2.
122.	140.00	No. 2 to No. 0.
123.	172.00	No. 0 to No. 000.
124.	212.00	No. 000 to 200,000 C. M.
125.	260.00	No. 10 Duplex Parellel Conduit Cable \square{8}x\square{8} in. (16x22 mm.)
126.	260.00	200,000 to 500,000 C. M.
127.	330.00	500,000 to 1,000,000 C. M.
128.	500.00	800,000 to 1,250,000 C. M.
129.	620.00	1,000,000 to 2,000,000 C. M.

#### STANDARD PACKING

Catalog	Number	Net W per B		Domestic Gross Weight	Export Gro		Code	
Numbers	per Barrel	Lbs.	Kgs.	per Barrel, Lbs.	Lbs.	Kgs.	Word	
110.	2500	380	172 154	420 380	430 390	195 177	IDIPE IDKIC	
111. 112.	1800	340 390	177	430	440	200	IDMIZ	
113.	1000	480	218	520	530	240	IDOGO	
114.	650	460	209	500	510	231	IDOHI	
115.	1800	370	168	410	420	191	IDKET	
116.	1400	360	163	400	410	186	IDKIF $IDMOB$	
117. 118.	1200	440 460	200	480 500	490 510	222	IDOGU	
119.	600	440	200	480	490	222	IDPIJ	
120.	1200	320	145	360	370	168	IDKEV	
121.	1100	360	163	400	410	186	IDMIX	
122.	900	400	181	440	450	204	IDMOC	
123.	650	430	195	470	480	172	IDOHA	
124.	550	420	191	460	470	168	IDPIK	
125.	550	440	200	480	490	222	IDSGI	
126. 127.	500 350	460 380	209 172	500 420	510 430	231	IDSGY IDSHE	
128.	175	410	186	450	460	209	IDSHO	
129.	150	410	186	450	460	209	ID UAW	



### SONS COMPANY



#### TUBE DIAMETERS

DIAMETERS					TUI	BE SIZ	ZE as 1	referre	d to in	List				
	5 16	3/8	1/2	5/8	3/4	1	1 1/4	11/2	13/4	2	21/4	21/2	23/4	3
Outside (in.) Outside (mm.) Inside (in.) Inside (mm.)	14.3 5 16 7.9	11 17.5 3/8 9.5	$ \begin{array}{r} \frac{13}{16} \\ 20.6 \\ \frac{1}{2} \\ 12.7 \end{array} $	23.8 5/8 15.9	$ \begin{array}{r} 1\frac{3}{16} \\ 30.2 \\ \frac{3}{4} \\ 19.1 \end{array} $	1 7/16 36.5 1 25.4	$ \begin{array}{r} 1\frac{13}{16} \\ 46.1 \\ 1\frac{1}{4} \\ 31.7 \end{array} $	$ \begin{array}{r} 2\frac{3}{16} \\ 55.6 \\ 1\frac{1}{2} \\ 38.1 \end{array} $	2 9 65.1 13/4 44.5	2 15 74.6 2 50.8	3 5 16 84.1 2 1/4 57.1	3 116 93.7 21/2 63.5	4 1/4 108 28/4 69.8	4½ 114 3 76.2

TUBE LENGTHS

Dimensions "L" on illustrations represent the length of Tubes as regularly referred to in our lists.

#### STANDARD UNGLAZED TUBES LIST PRICE (DOLLARS) PER \$1000

L	-	9/1	1/				1 (	JBE SI	ZE					
	16	3/8	1/2	%	3/4	1	11/4	11/2	13/4	2	21/4	21/2	23/4	3
1 1/2 1 1/2 2 1/2 2 1/2 3 4 5 6	\$ 16 \$ 17 18 19 21 23 30 39 50	20 5 21 22 24 27 30 40 50 60	26 27 28 30 33 37 48 60 72	\$ 40 46 52 58 65 80 95 110	\$ 60 70 80 90 100 116 132 148	112 125 138 150 168 186	\$ 150 170 190 210 240 272	230 255 280 320 360	340 370 445 520	460 500 630 760	\$ 590 640 835 1030	\$ 740 800 1090 1380	\$ 920 1000 1450 1900	\$ 115 125 175 225
8	90	105	130	140	180	204 240	306 376	405 490	750	900 1160	1225 1615	1670 2250	2350 3250	275 375
10	167	186	215	250	290	375	450	580	900	1430	2005	2830	4150	475
12	244	267	300	340	390	500	700	1025	1600	1700	2400	3420	5050	575
14	321	348	385	430	492	625	870	1235	1900	2800	4000	5600	5950	680
16	398	429	470	520	594	750	1040		2200	3200	4520	6240	8200	1020
18	475	510	555	610	696	875	1210	1660	2500	3600	5040	6880	8900	111!
20	552	591	640	700	798	1000	1380	1875	2800	4000	5560	7520	9600	121
22	629	672	725	790	900	1125	1550	2090	3100	4400	6080	8160	10300	130
24	706	753	810	880	1000	1250	1720		3400	4800	6600	8800	11000	140

For solid Floor Tube prices multiply above List by 3.

For split Floor Tube prices multiply above List by 6.

For split Standard Tube prices multiply above List by 10. For solid Cross-Over Tube prices multiply above List by 6.

For split Cross-Over Tube prices multiply above List by 12.
For Curved and Curved End Tube Prices multiply above List by 3.
For Headless Tube prices (above 8" long) multiply above List by 4.
For Headless Tube prices (8" or under in length) use Regular List.

For Glazed Tube prices add 50% to Net Prices.



### SONS COMPANY

#### TUBES—Continued

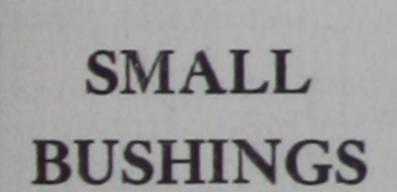
#### NUMBER OF STANDARD TUBES PACKED PER BARREL

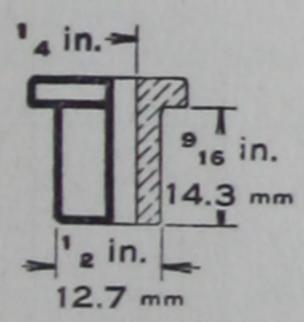
L					TUBE SI	ZE			
	5 16	3/8	1/2	5/8	3/4	1	11/4	11/2	13/4
1 1 1 1 1 2 2 1 2 1 2 3 4 5 6 8	15000 11000 9000 6500 5500 4500 3000 2500 2350 2000	12500 7500 6000 5000 3750 3000 2200 1700 1600 1400	10000 6000 4200 3400 2800 2000 1600 1250 1050 1000	4500 3200 2500 2000 1500 1200 1000 1000 850	3700 2500 1800 1500 1100 900 800 650 675	2000 1500 1100 900 750 600 500 400 400	725 625 525 425 300 285 275 225	450 400 350 300 250 240 225 190	280 250 225 200 200 175 150
10	1850	1300	900	800	550	300	180	150	140
12	1500	1000	750	650	500	275	150	125	120
14	1100	850	600	500	300	225	120	100	90
16	1000	650	500	450	275	175	90	75	60
18	900	500	350	200	190	100	75	60	50
20	750	500	300	200	150	100	75	60	50
22	600	500	300	200	150	100	75	60	50
24	600	450	300	200	150	100	75	60	50

#### GROSS WEIGHT PER BARREL STANDARD TUBES

-					TUBE S	IZE			
L	5 16	3/8	1/2	5/8	3/4	1	1 1/4	1 1 1/2	13/4
1 1½ 1½ 2 2½ 3 4 5 6 8 10 12 14 16	360 370 350 310 310 280 240 235 285 355 350 335 310 315	370 380 300 355 310 315 265 255 285 345 355 315 395 300	370 375 345 315 315 235 245 245 250 390 360 345 320 335	380 375 355 325 265 350 340 240 350 355 340 335 275	330 320 310 295 280 255 265 235 370 385 335 305 385	350 360 345 330 315 240 265 235 395 400 330 315 315	420 350 320 310 230 250 260 275 290 265 270 245	420 350 325 315 225 235 245 290 280 280 285 295 250	400 380 370 240 255 270 295 255 280 290 250
18 20	320 315	305 320	300 325	285 300	240 255	250 285	235 260	225 255	290 310
22 24	325 340	330 330	320 305	300 325	305	315 380	295 310	290 305	335 360

All Tubes larger than 13/4 x 24 inches are packed 50 Tubes per Barrel.

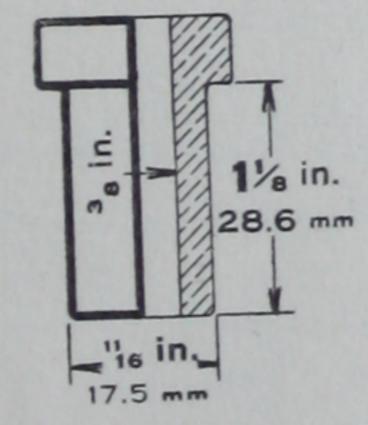




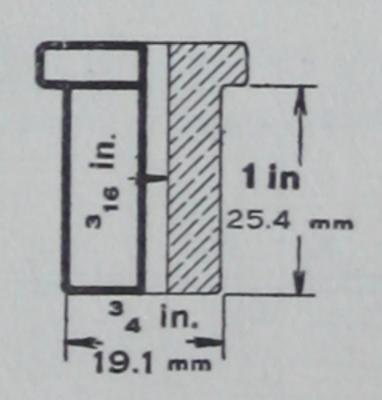
No. 400 No. 401

5 in. -

8 mm

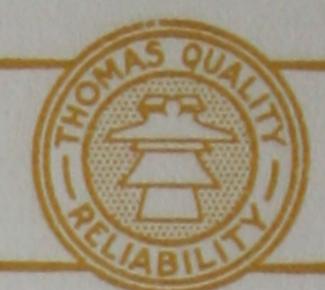


No. 402



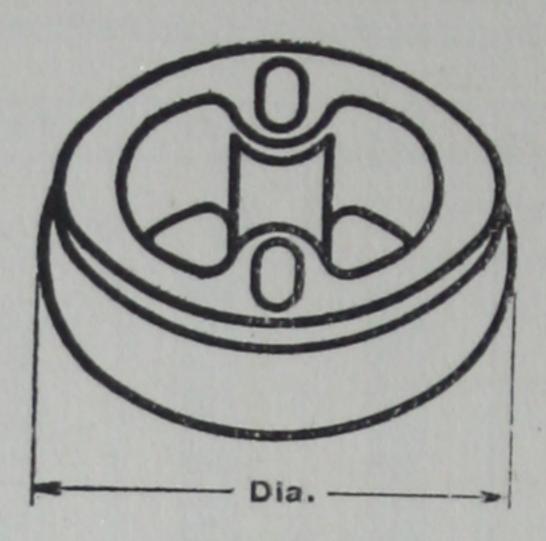
No. 403

Standard Number	List Price per 1000	Number   per Bar   Lbs.		Domestic Gross Weight per Barrel	Export Gro		Code Word	
1 dinber	per 1000	in Barrel     Lbs.       15,000     210       6,000     160       5,000     185	Kgs.	Lbs.	Lbs.	Kgs.		
400. 401. 402. 403.	50.00 57.00 80.00 70.00	6,000	160	95 73 84 107	250 200 225 275	260 210 235 285	118 95 107 129	IDHIY IDHOD IDIOW IDIOY

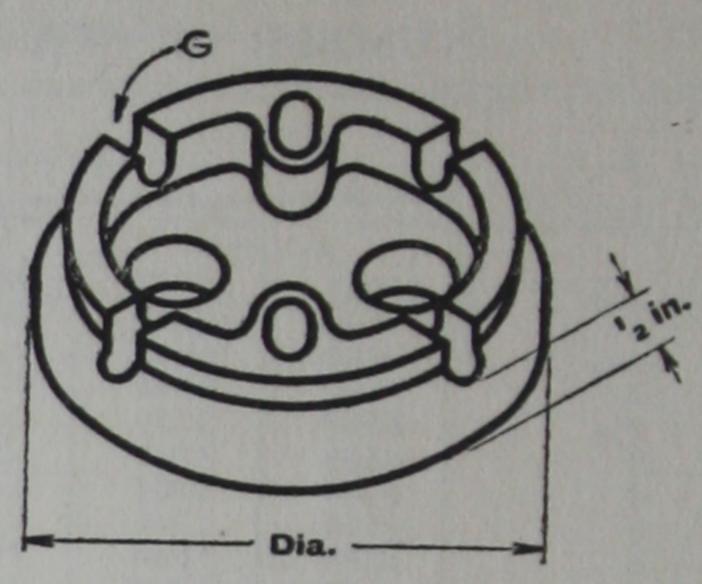


### SONS COMPANY

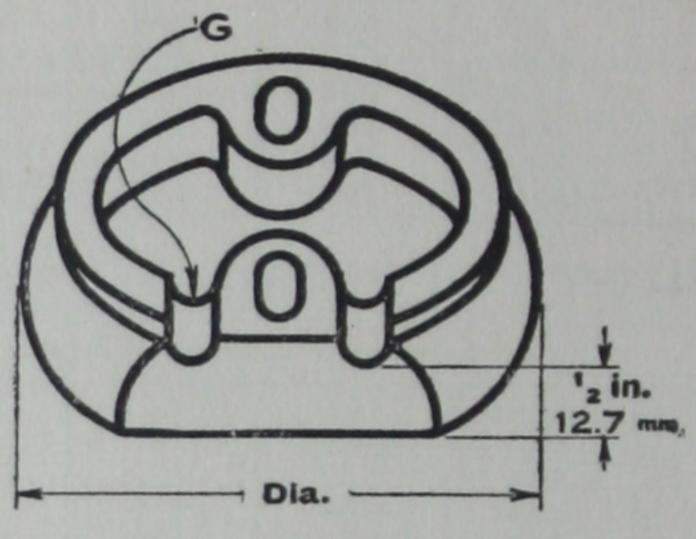
#### SUB-SWITCH BASES



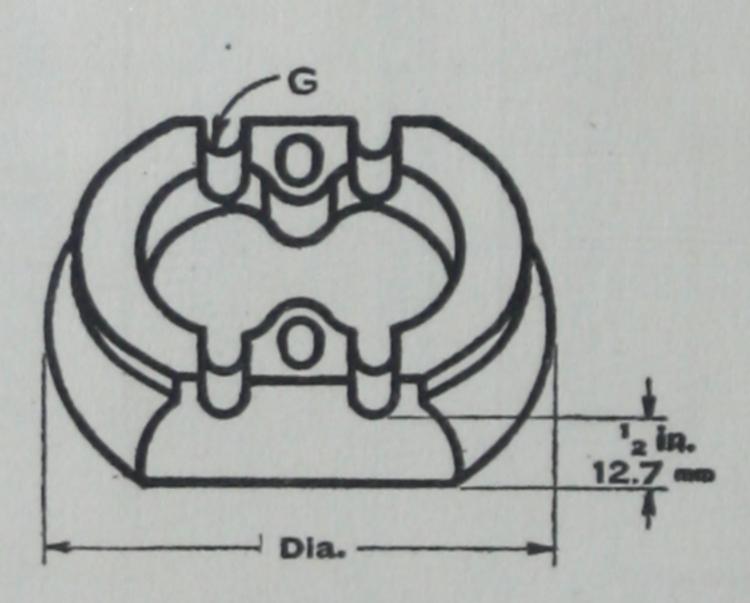
STYLE A
Concealed type



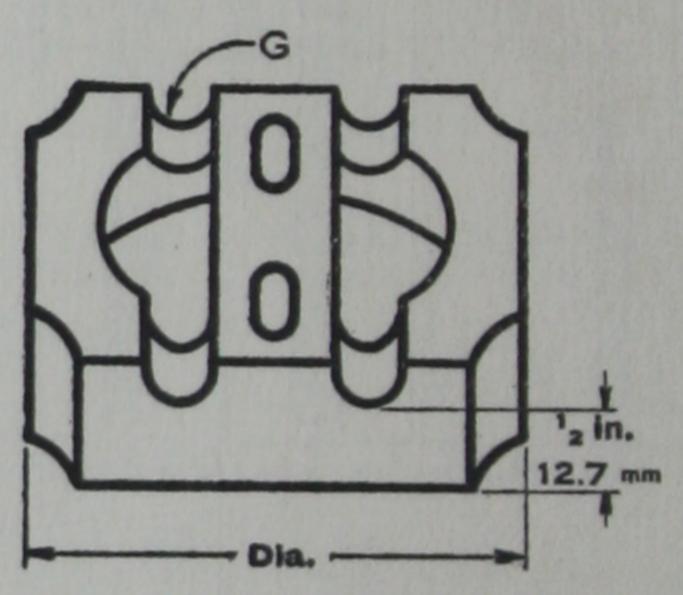
STYLE B Cleat and Concealed type



STYLE C End Moulding type



STYLE D Line Moulding type



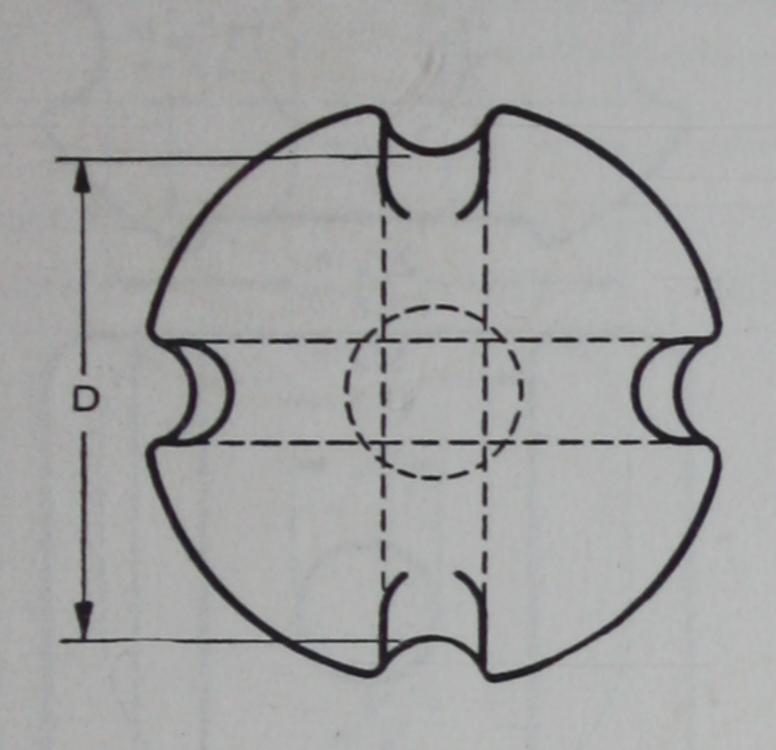
STYLE E
Square Combination type

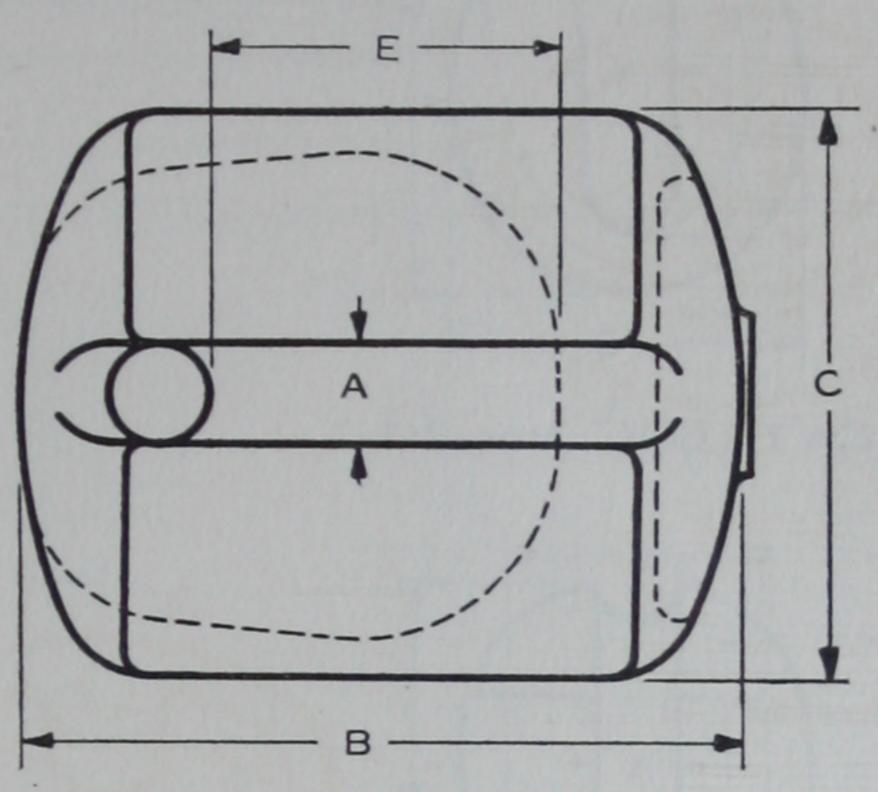
Style Num-	Ca- pacity	List Price	0	neter	Gro Dian	ove	Number	Net W		Domestic Gross Weight	Export Weigh Bar	nt per	
ber	in Am- peres	per 1000	in.	mm.	in.	mm.	Barrel	Lbs.	Kgs.	Barrel, Lbs.	Lbs.	Kgs.	Code Word
A- 5 A-10 B- 5 B-10 C- 5 C-10 D- 5 D-10 E-10	3- 5 5-10 3- 5 5-10 3- 5 5-10 5-10 5-10	110.00 145.00 110.00 145.00 145.00 145.00 145.00 145.00	23/8 3 21/2 3 2 1/6 3 2 1/6 3 2 1/6	60 76 64 76 65 76 65 76 62	1/4 5/6 1/4 5/6 3/8	6.4 7.9 6.4 7.9 6.4 7.9 9.5	1800 1100 1800 1100 1800 1100 1200	370 340 400 380 320 360 340 330 300	168 154 181 172 145 163 154 150 136	410 380 440 420 360 400 380 370 340	420 390 450 430 370 410 390 380 350	191 177 204 195 168 186 177 172 159	IDUBA IDUBS IDUBY IDUWI IDUXE IDUXE IDUYE IDUYE IDUYE IDYOC

### THE R. THOMAS & (C)



### SONS COMPANY





#### CATALOG Nos. 500-6

Catalog Number	A	В	C	D	E	Ultimate Crushing Strength	Code Word
500	3/8 in.	2½ in.	1% in.	1 in.	5/8 in.	4,000 lbs.	GADEW
502	9.5 mm. ½ in.		$39.7 \text{ mm.}$ $2\frac{1}{2} \text{ in.}$		15.9 mm. 1½ in.	1,815 kgs. 11,000 lbs.	GADFI
	12.7 mm.	88.9 mm.	63.5 mm.	50.8 mm.	28.6 mm.	4,990 kgs.	
504	1/2 in. 12.7 mm.	3% in. 92.1 mm.	2½ in. 73.1 mm.	, ~	13/4 in. 44.5 mm.	19,000 lbs. 8,619 kgs.	GADFY
506	3/4 in.	$5\frac{1}{2}$ in.	33/8 in.	2% in.	23/4 in.	45,900 lbs.	GADGA
	19.1 mm.	140 mm.	85.8 mm.	65.1 mm.	69.9 mm.	20,412 kgs.	

#### DOMESTIC

Catalog	List Price	Per 1000 Dry		Net Weight	Gross Weight	
Number	Per 1000 Dry  210.00 420.00 23,000	Wet	- Per Barrel	Per Barrel	Barrel	
500	210.00 420.00 16,000 23,000		9,000	374 lbs.	425 lbs.	1700
502	Per 1000 Dry  210.00 420.00 23,000	14,000	440 lbs.	480 lbs.	400	
504	Per 1000  Dry  210.00 420.00 525.00  Dry  16,000 23,000 25,000	15,000	390 lbs.	440 lbs.	250	
506	1000.00	31,000	20,000	340 lbs.	385 lbs.	150

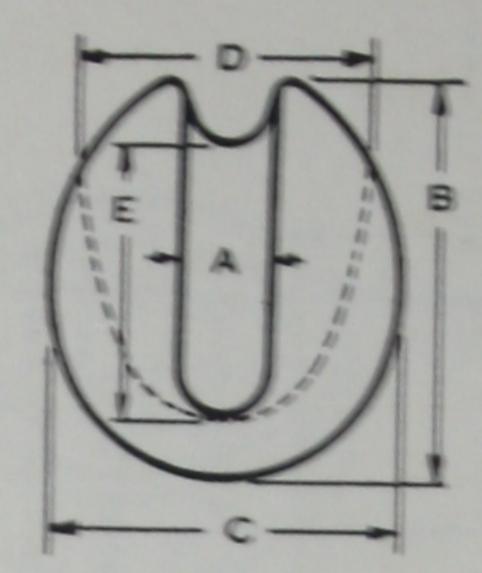
For Export Shipments the following Packing applies:

Cat. No. 500 packed 1500 per Barrel. Net Weight 330 lbs. (150 kgs.) Gross Weight 390 lbs. (177 kgs.) Cat. No. 502 packed 350 per Barrel. Net Weight 385 lbs. (175 kgs.) Gross Weight 430 lbs. (195 kgs.)

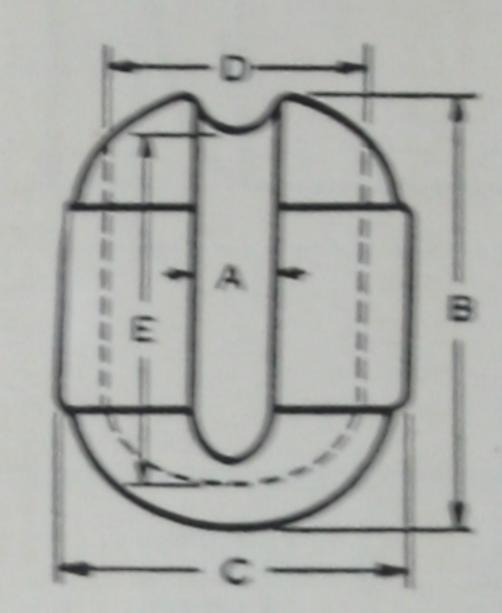
Cat. No. 504 packed 250 per Barrel. Net Weight 390 lbs. (177 kgs.) Gross Weight 440 lbs. (200 kgs.) Cat. No. 506 packed 150 per Barrel. Net Weight 340 lbs. (154 kgs.) Gross Weight 385 lbs. (175 kgs.)



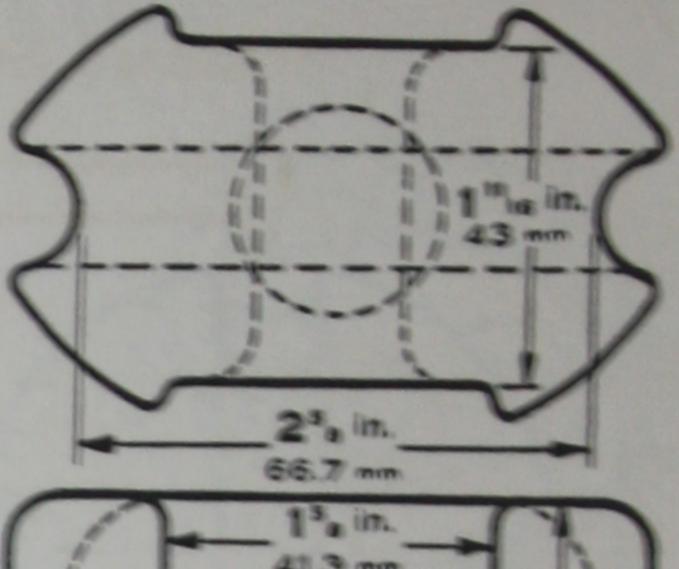
### SONS COMPANY

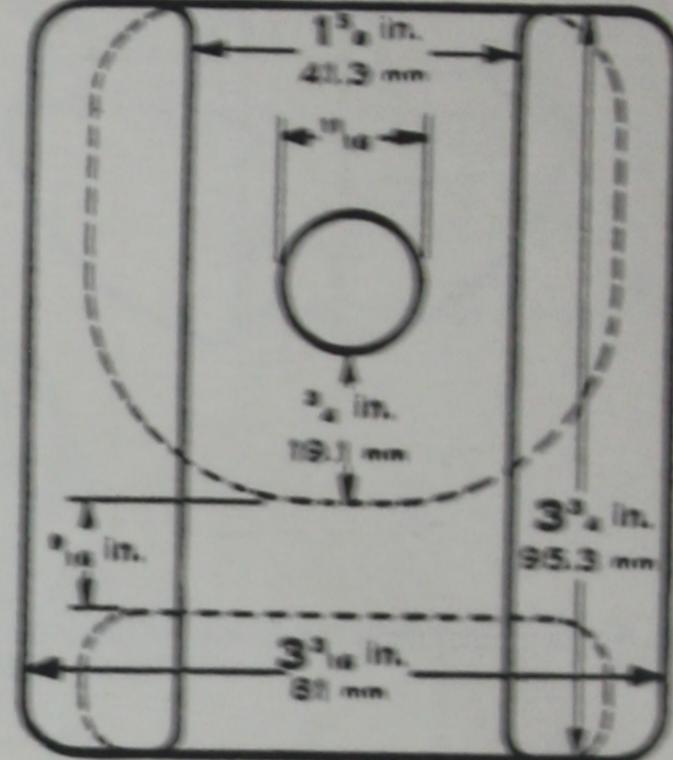


CATALOG Nos. 361-2



CATALOG Nos. 365-6





CATALOG No. 508

Catalog Number	A	B	C	D	•	Ultimate Crushing Strength	Code Wood
361	17.5 mm.	3 im. 76.2 mm.	25% im. 66.7 mm.	2½ im. 54 mm	2 im. 50.8 mm.	19,000 lbs.	
362	% im_	43% im. 113 mm.	31/4 im.	214 im.	274 im	8,619 kgs. 25,000 lbs. 11,340 kgs.	
365	12.7 mm.	63.5 mm.	23% im. 55.6 mm.	1½ im. 38.1 mm.	2 im.	6,500 lbs. 2,948 kgs.	GAANG
366	% im.	3½ im. 82.5 mm.	2% im.	1% im.	25% im		GAANO
508							GAGAW

#### DOMESTIC

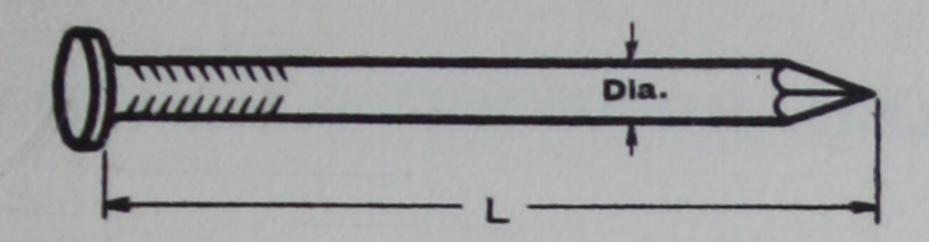
Catalog Number	List Price Per 1000	Flash-Ow	er Voltage	Net Weight	Gross Weight	Number in
TAITHURS.	Ter food	Dry	West	Fen Bannell	Per Barrel	Bannell
361 362 365 366 508	391.00 708.00 239.00 368.00 535.00	14,000 17,000 12,000 15,000 19,000	7,000 10,000 5,000 7,000 8,000	350 lbs. 345 lbs. 395 lbs. 385 lbs. 435 lbs.	390 lbs. 395 lbs. 440 lbs. 420 lbs. 495 lbs.	500 182 625 350 300

For Export Shipments the following Packing applies:

Cat. No. 361 packed 500 per Barrel. Net Weight 360 lbs. (159 kgs.)
Cat. No. 362 packed 182 per Barrel. Net Weight 345 lbs. (157 kgs.)
Cat. No. 365 packed 625 per Barrel. Net Weight 395 lbs. (179 kgs.)
Cat. No. 366 packed 380 per Barrel. Net Weight 385 lbs. (178 kgs.)
Cat. No. 366 packed 380 per Barrel. Net Weight 385 lbs. (178 kgs.)
Cat. No. 508 packed 280 per Barrel. Net Weight 360 lbs. (163 kgs.)
Cat. No. 508 packed 280 per Barrel. Net Weight 360 lbs. (163 kgs.)
Cat. No. 508 packed 280 per Barrel. Net Weight 360 lbs. (163 kgs.)
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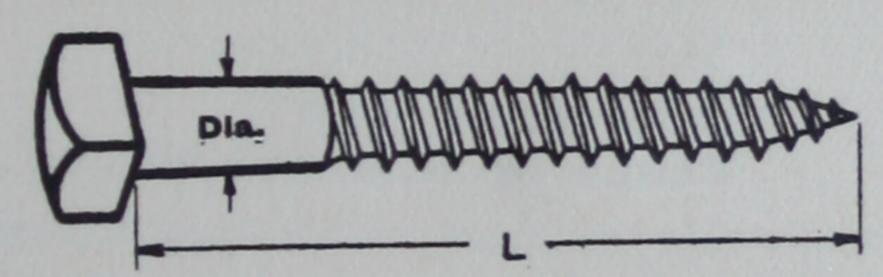
## THE R. THOMAS & SONS COMPANY

#### Standard Steel Wire Nail Data



Nail Size	Length (inches)	Wire Gauge	Diameter (inches)	Number in Lb
2 d.	1	15	.072	876
3 d.	11/4	14	.08	568
4 d.	11/2	121/2	.0985	316
5 d.	13/4	121/2	.0985	271
6 d.	2	111/2	.113	181
7 d.	21/4	111/2	.113	161
8 d.	21/2	101/4	.135	106
9 d.	23/4	101/4	.135	96
10 d.	3	9	.1483	69
12 d.	31/4	9	.1483	64
16 d.	31/2	8	.1620	49
20 d.	4	6	.192	31
30 d.	41/2	5	.207	24
40 d.	5	4	.2253	18
50 d.	51/2	3	.2437	16
60 d.	6	2	.2625	11

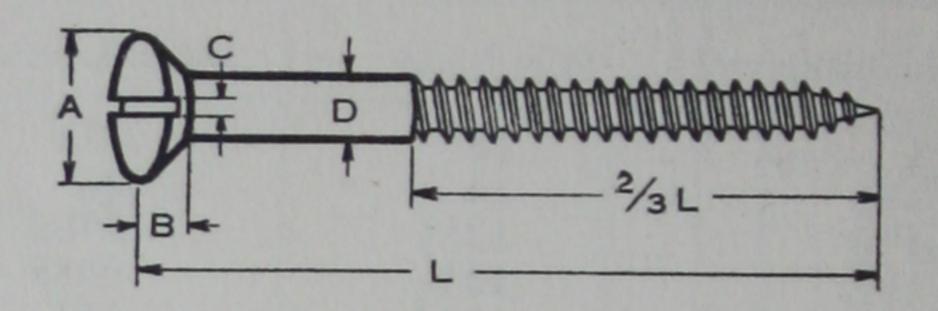
#### Standard Steel Lag Screws



#### INDICATING SIZES AND WEIGHTS PER 100 (lbs.)

ength under Head			S	CREW	SIZES (d	iameter	of stock	under hea	d) inches			
nches	1/4	18	3/8	16	1/2	16	5/8	3/4	7/8	1	11/8	11/4
11/2	2	3	5	9	13							
2	3	4	7	11	15	22	26					
21/2	4	5	8	12	17	25	29	43				
3	5	6	9	14	19	27	33	46	71			
31/2	6	7	11	16	21	30	37	51	78	112		
4	7	8	12	18	23	33	40	57	85	121		
41/2	8	9	13	19	26	35	44	62	92	130		
5	9	10	14	21	28	38	48	68	98	141	184	
51/2	10	11	16	23	31	40	52	74	105	153	196	
6	11	12	17	25	33	43	55	80	112	164	207	250
61/2			18	34	36	47	58	85	118	174	219	265
7			20	36	38	50	63	92	125	185	230	279
71/2			21	40	41	53	66	98	131	195	242	291
8			22	42	44	56	69	104	138	205	254	306
9			24	44	48	63	76	115	156	225	267	320
0				47	53	70	83	126	173	245	285	334
1				49	57	77	90	138	191	265	300	350
2				52	62	83	97	149	208	285	315	368

#### STANDARD WOOD SCREW DATA



#### FORMULA

D=0.01325N + 0.056

D-0.056

0.01325

D=Diameter of Screw

N=Screw Number

#### TABLE OF DIMENSIONS

Screw		В	C	D	No. Thread					S	tano	daro	d lei	ngth	s m	Lanu	fact	ure	d (in	nch	es)				
No.	in.	in.	in.	in.	per	1/4	3/8	1/2	5/8	3/4	7/8	1	11	11	134	2	21	21/2	234	3	31/2	4	4	5	1
0. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 20. 24. 26. 30.	.5316 .5579 .5842 .6368	.0984 .1059 .1134 .1210 .1286 .1362 .1437 .1513 .1589 .1665 .1816 .1967 .2118 .1967 .2118		.0578 .0710 .0841 .0973 .1105 .1236 .1368 .1500 .1631 .1763 .1894 .2226 .2158 .2226 .2158 .2289 .2421 .2552 .2684 .2947 .3210 .3474 .3737 .4000 .4263 .4546	30 28 26 24 22 20 18 17 15 14 13 12.5 12 11 10 9.5 9.8 7.5 7.5 7.5 6.5 6	**	66		66	66 66 66 66 66 66 66	66	66 66 66 66 66 66	46 46 46 46 46 46 46 46 46	66 66 66 66 66 66 66 66	66 66 66 66 66 66 66 66	66 66 66 66 66	66 66 66 66 66 66 66	44 44 44 44 44 44	44 44 44 44 44	66 66 66 66	66 66 66		"	"	46

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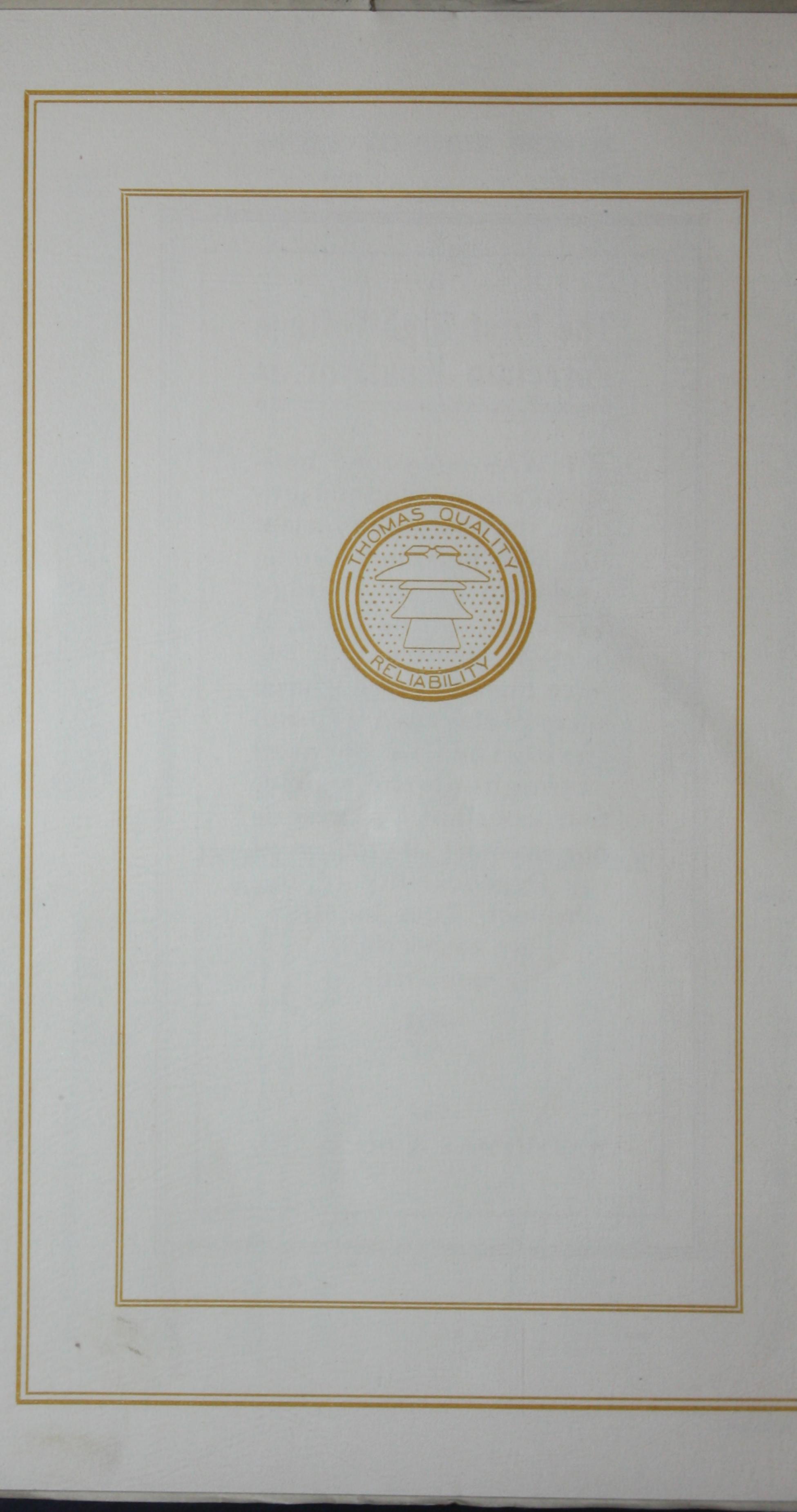
### The First High Voltage Porcelain Insulator

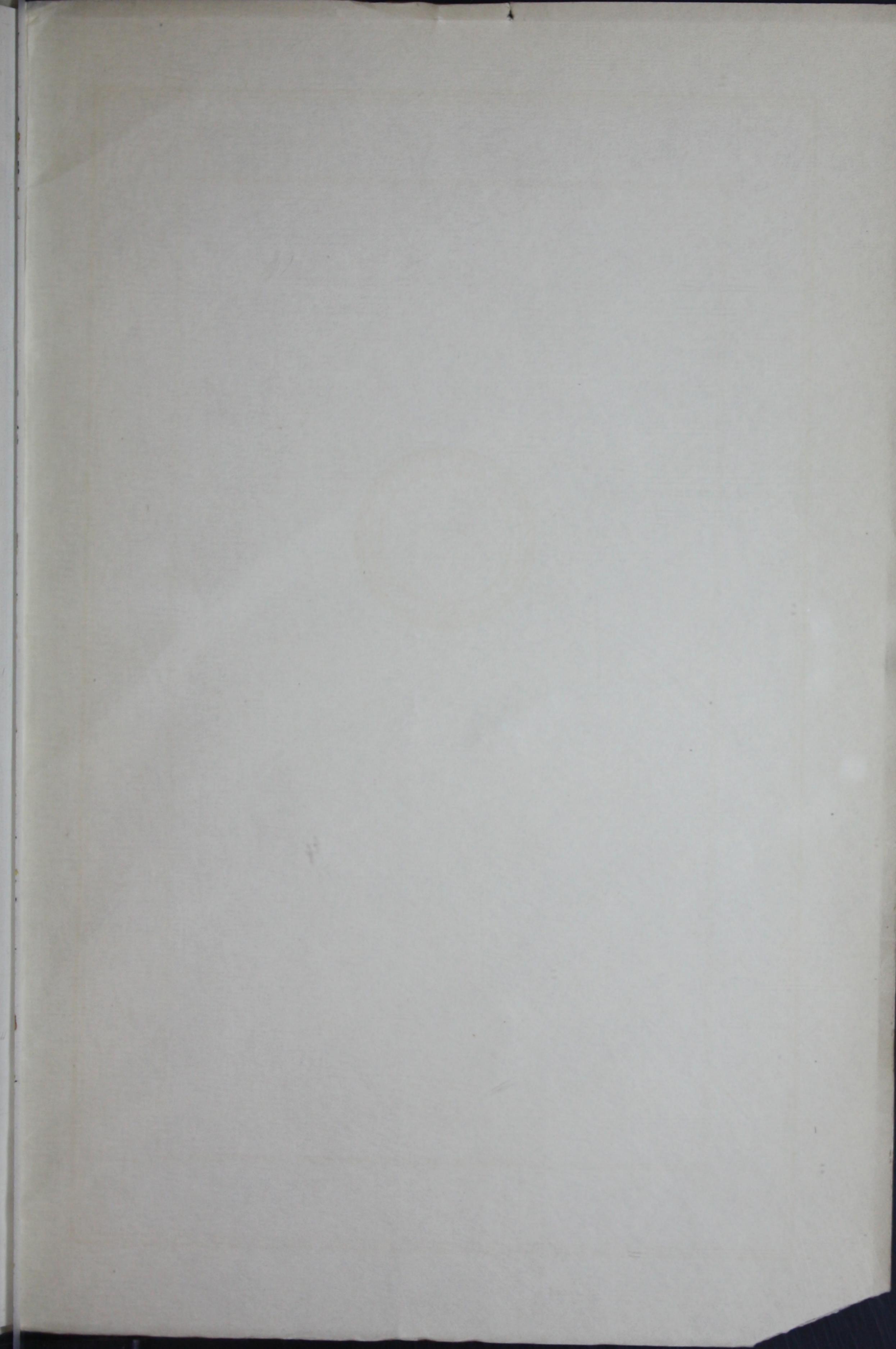
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T WAS our proud heritage to develop and produce the first all-porcelain Insulator in America to be used on High Voltage Systems. Since then, a quarter century ago, we have manufactured a large share of the High Tension Insulators to be used throughout the world. Our constant progress is our greatest assurance of the Dependability of our Product. Your Inquiries are respectfully solicited



The R. THOMAS & SONS CO.







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